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# Middle East and North Africa

## Review of Agriculture in 1981 and Outlook for 1982



## ABSTRACT

Agricultural production in the Middle East and North Africa declined by 2 percent in 1981. The drought in Morocco and lower livestock output in Iran and Iraq contributed to the decline. Agricultural output in Turkey and Egypt made only slight gains. Agricultural imports by the region increased by 21 percent to \$29 billion in 1981. The European Community provided about 30 percent, and the United States and Oceania, each, about 11 percent.

The region's agricultural production should rebound in 1982. Still, agricultural imports may increase to a record \$33 billion. The U.S. share of the market is expected to remain near the 1981 level.

**Keywords:** Middle East, North Africa, OPEC, petroleum earnings, food imports, agricultural policies, food subsidies.

## FOREWORD

The report covers the agricultural situation and outlook of the Middle East and North Africa. A feature article discussing the growing market for food imports and the U.S. share is included, as well as a report on rice demand in the region. A number of tables cover U.S. agricultural trade with the Middle East and North Africa. In addition, there are tables on the indices of agricultural and food production and on the production of selected agricultural commodities, by country, covering the last 3 years and an average for 1969-71 base years.

Michael E. Kurtzig directed the preparation of this report. Authors were Michael E. Kurtzig, John B. Parker, Herbert H. Steiner, and H. Charles Treackle. Bernadine Holland, Dee Midgett, Cornelia Miller, and Alma Young provided the typing support.

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Cheryl Christensen, Chief  
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# ABBREVIATIONS

All tons are metric

EC-European Community

FY-Fiscal Year

GDP-Gross Domestic Product

GNP-Gross National Product

IMF-International Monetary Fund

MY-Marketing year

UAE-United Arab Emirates

YAR-Yemen Arab Republic

U.S. dollars are used, unless otherwise specified.



## North Africa and Middle East



# MIDDLE EAST AND NORTH AFRICA REVIEW OF AGRICULTURE IN 1981 AND OUTLOOK FOR 1982

## SUMMARY

### Production Declines Slightly in 1981

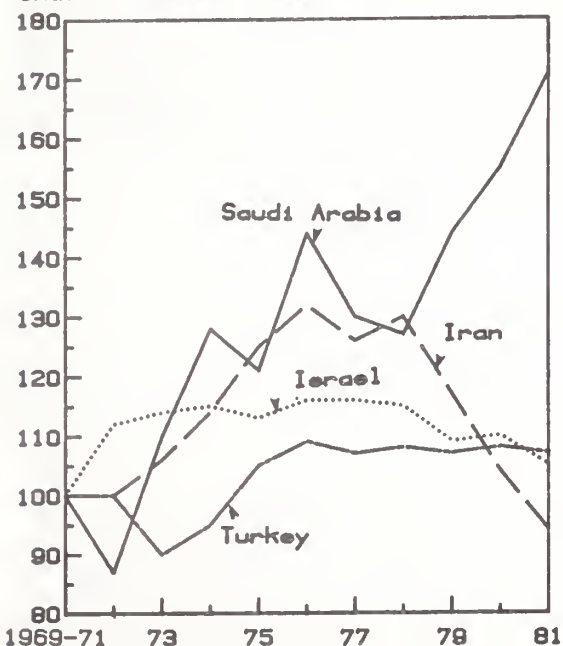
Total agricultural production in the Middle East declined slightly in 1981 but was still 41 percent above the 1969-71 base period. Per capita food production also fell slightly (see table 9). Among the steadier producers, the sharpest declines occurred in Iran and Iraq. Production in Jordan seems to have developed a cyclical nature determined by weather. Therefore, while production was sharply higher in 1980, it was poor again in 1981.

The region's total grain output increased by 5.4 percent in 1981 (see table 10). Barley production was up 9.2 percent, with record crops in Turkey and Syria. Turkey's wheat output was a record 13.2 million tons, and Iran's crop rebounded to 5.3 million, following a poor year in 1980. Cotton output has remained the same in the last 3 years, as Iran's production continues to decline, while Israel's was a record.

Improving diets, rising incomes, better marketing and distribution, and the availability of foreign exchange have bolstered demand for food in the Middle East. At the same time, per capita food consumption is growing at about 6 percent annually—about double the population growth rate. Subsidies are used to keep prices for essential foods within the reach of the average consumer. Also, prices are controlled or monitored in a number of countries to prevent sharp fluctuations. With the exception of flourishing private traders in Saudi Arabia and some other Gulf States, most food imports are carried out by public agencies.

### Per Capita Food Production in Selected Middle East Countries

Index of 1969-71 as 100



Agricultural production in North Africa declined 3 percent in 1981 but remained 23 percent above the 1969-71 average. The main reason for the decline was the drought in Morocco, which caused a 26-percent drop in that country's production index. Without the drought in Morocco, North African production would have increased about 8 percent. All the other countries showed gains ranging from 19 percent in Libya to 1 percent in Egypt. Libya's large increase was the result of many years of investment in land reclamation and livestock production. Good weather helped the increase in Algeria, but a change in the policy to allow more local autonomy in the socialist sector may have also had a positive effect.

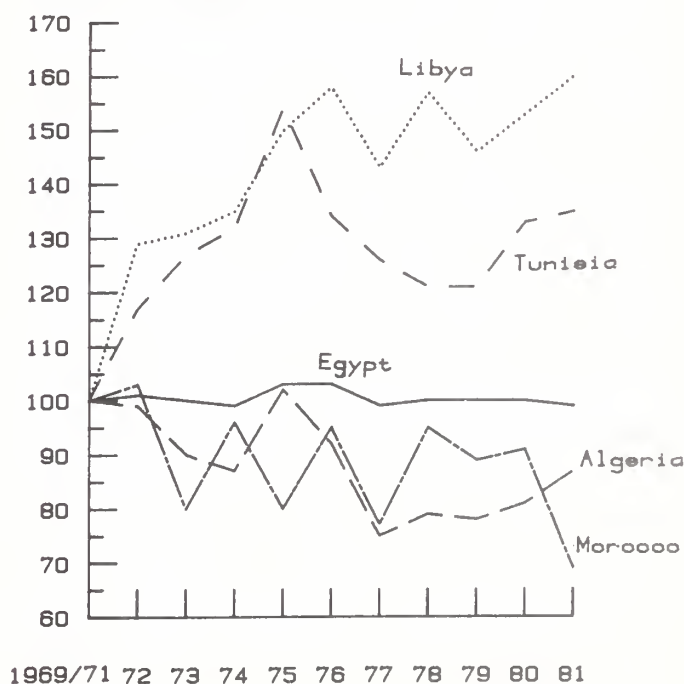
A peak in the olive oil production cycle helped raise Tunisia's index to a new high, 74 percent above the base period. Tunisia's wheat production also hit a record, as large-scale planting using improved varieties and more fertilizer and herbicides boosted the yield. On the other hand, Egypt's production languished. Low prices provided little incentive to producers, and yields were held below their potential by an inadequate use of new technology.

Per capita agricultural output rose in Algeria, Tunisia, and Libya but fell in Egypt and Morocco. Consumer subsidies for staple foods continue in all North African countries, although Morocco and Tunisia reduced theirs in 1981.

Most countries in Middle East and North Africa have become concerned about their growing dependence on

### Per Capita Food Production in North Africa

Index of 1969-71 as 100



food imports. Interestingly, the most spectacular growth in agricultural output has occurred in the countries who have invested most heavily in agriculture, particularly Saudi Arabia. Despite these impressive investments and output gains, demand for food has increased much faster, and imports continue to rise. Some countries' efforts to seriously curtail food imports have led to severe shortages and shifts in policy, which eventually led to much larger imports.

### Agricultural Imports Up Sharply

The region's total agricultural imports rose from \$18 billion in 1979 to \$29 billion last year (table 2). EC agricultural exports rose to \$8.7 billion in 1981—nearly double the 1979 level. U.S. agricultural exports to the region reached \$3.3 billion—about 36 percent above 1979. Agricultural exports by Australia, Brazil, Thailand, and several other countries rose sharply in recent years.

The Middle East and North Africa accounted for about 11 percent of the world's agricultural imports in 1981. Grain imports increased from 29 million tons in 1980 to 33 million in 1981. At 7.3 million tons, Egypt was the region's largest grain importer, but Iran and Saudi Arabia grew at an even faster pace to more than 4 million tons each.

The region's wheat and flour imports increased 12 percent to nearly 20 million tons, including 5.9 million for Egypt and over 2 million tons each to Algeria, Morocco, and Iran. Feed grain imports rose to about 10.4 million tons in 1981—nearly double the 1979 volume. Saudi Arabia was by far the largest importer. Imports by Israel, Iran, and Egypt were in the vicinity of 1.2 to 1.4 million tons each.

Rice imports increased over 26 percent between 1979 and 1981, to nearly 2.6 million tons, including 630,000 by Iran, 575,000 by Saudi Arabia, and over 370,000 by Iraq.

Other imports, ranked in order of importance by quantity, are sugar, vegetable oils, poultry meat, dairy products, pulses, soybeans, beef, tallow, and fresh fruit. Imports of processed foods soared in the last 7 years. Items that are offered at attractive prices by exporters and which contribute to improvement in the protein content of the average diet are expected to continue to rise. Cheese, butter, beef, poultry meat, and pulses are among these, and they are expected to be the major growth items in the foreseeable future.

During the 1970's, poultry meat imports increased from less than 100,000 tons to 900,000 by 1981. Despite a reduction in Egyptian imports, the total is expected to be near 1 million tons in 1982.

Imports of sugar increased from 4.5 million tons in 1980 to 6 million in 1981, because of larger purchases by Egypt, Iran, Turkey, Algeria, and Morocco. The EC, Thailand, the Philippines, and Brazil were the major suppliers.

Imports of vegetable oils were in the vicinity of 2 million tons, including 400,000 by Iran and 300,000 by Egypt. Saudi Arabia, Algeria, and Iraq each imported more than 200,000 tons in 1981. Brazil and the EC

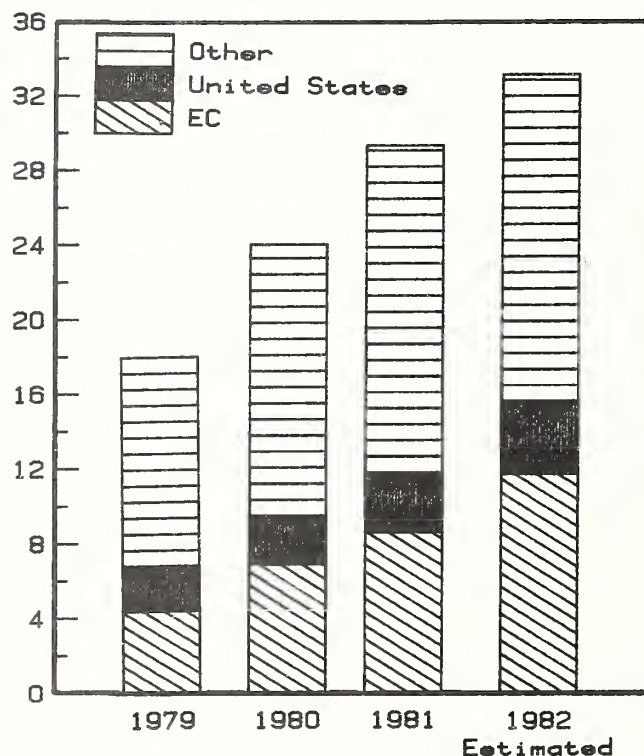
have expanded their sales of soybean oil to the Middle East market, while the United States increased shipments of sunflower and corn oil. The region annually imports about 500,000 tons of soybeans for crushing. Israel is by far the leading importer, although purchases by Egypt and Morocco are increasing.

Turkey, Thailand, the EC, and the United States have been the region's major suppliers of pulses in recent years. Imports from Syria, Ethiopia, and India have declined drastically in recent years.

Agriculture's share of total U.S. exports to the region remained at about 16 percent in 1981, as the value climbed 26 percent to \$20.2 billion. U.S. imports from the region declined from \$36 billion in 1980 to \$31 billion last year, mainly because of the drop in petroleum imports from Algeria and Libya. Purchases of Libyan oil declined 32 percent to \$5.5 billion in 1981 and are expected to continue lower in 1982. Saudi Arabia accounted for half of the \$30 billion the United States paid for petroleum imports from the Middle East and North Africa. (Michael E. Kurtzig)

### Agricultural Imports by the Middle East and North Africa

Billion dollars





## MIDDLE EAST

### Iran

#### **Agriculture Improves, But Imports Also Rise**

Despite problems related to the war, damaged ports, and political upheaval, Iran's economy operated slightly better than expected in 1981. Factories expanded their output considerably, and larger food imports helped ease some of the severe shortages that occurred in 1980. Petroleum exports declined to about \$9.3 billion—one third below the 1980 value and far below the peak of \$24 billion in 1977. Yet, prospects for a rebound in petroleum exports helped Iran to obtain large loans from banks in East Asia. Iran's petroleum exports averaged less than 1.2 million barrels a day in the last quarter of 1981, but they increased considerably during some months of early 1982. Japan, India, Brazil, and Thailand are important customers.

Efforts to turn the tide of the war with Iraq prevented a further rise in unemployment. One third of the labor force was unemployed in September 1980 when the war began. The departure of U.S. and European technicians in 1979 created problems in the operation of factories and infrastructural facilities. Technicians from Asian countries have recently helped provide skills needed to revive certain industries.

Claims from American firms have prevented a resumption of normal economic relations between the United States and Iran. U.S. imports from Iran fell from \$3.5 billion in 1979 to \$66 million in 1981. Some petroleum purchases made by U.S. firms in 1979 were delivered in 1980, when our imports from Iran totaled \$478 million.

Public trading firms have taken over most of Iran's foreign trade. The Government Trading Organization (GTO) has made large purchases of wheat, rice, and barley, as efforts to ease shortages intensified. Large rice purchases helped reduce consumer prices for this item. The Iranian Meat Organization (IMO) has increased imports of live animals and meat.

#### **Agricultural Production Shows Mixed Picture; Farm Policies Change**

Larger harvests of wheat and barley nearly offset the decline in the output of livestock products in 1981. Favorable weather, greater use of machinery, and attractive prices resulted in more wheat planted and an output estimated at 5.3 million tons. Barley production rose about 17 percent to nearly 1.2 million tons. Despite these gains, 1981 per capita agricultural production was about one-fourth below the 1978 level. Rice production has remained relatively steady at 1.2 million tons of paddy annually. Most of the rice is grown near the Caspian Sea, and prospects for expansion are not good.

The output of sugar beets has dwindled in recent years as irrigated fields were shifted to vegetables. As a result, sugar production declined, necessitating continually larger imports, estimated at 1.1 million tons in 1981. Production of dry beans increased about 20 percent to 120,000 tons in 1981, and the output of lentils remained steady at nearly 30,000 tons.

Production of onions rebounded to nearly 400,000 tons, because the irrigated area expanded. Scarce supplies of winter tomatoes from Khuzistan were offset by larger amounts from central Iran, and production rebounded to about 375,000 tons in 1981. The harvest of dates, at 250,000 tons, was far below normal because of the war. Yet, the extensive orchards and vineyards planted in the 1980's in central and northern Iran were productive, and the total fruit output increased about 10 percent to approximately 2 million tons.

Iran's meat output declined from 738,000 tons in 1978 to less than 500,000 in 1981. Imported feed remained scarce, and some farmers chose to reduce the number of livestock they maintained because of the uncertain feed supplies.

In light of production problems, Iran has altered programs that hindered food imports in 1979, when self-sufficiency was imagined as easily obtainable. The curtailment of imports led to severe shortages and astronomical price hikes. The situation was partly corrected by larger imports in 1980 and 1981, especially for cereals. However, shortages of meat, eggs, cooking oil, and sugar remain severe.

Government procurement activities increased in 1981, when about 1 million tons of wheat and over 500,000 tons of rice were purchased from farmers. The farmers were paid about \$250 a ton for wheat. While this price may appear relatively high, it was near the landed cost for imported wheat. The area planted in wheat and barley expanded in response to high prices and the availability of more tractors and improved seed.

Diversification of food imports has apparently become part of Iran's trade policy. Also, food imports from sources who are customers or potential buyers of Iranian oil are expanding. Thailand, India, Pakistan, and Brazil are favored for this reason. Furthermore, the United States, Australia, and Argentina can provide a large volume of specified cereals for a relatively low unit price. Imports of Australian wheat have remained above 600,000 tons annually during the last 3 years. Argentina is scheduled to send 1.1 million tons of grain during 1982/83, with a 50-50 split for wheat and corn. In contrast, Iran accounted for only 0.6 percent of U.S. agricultural exports in 1981.

Iran is also an important customer of a number of other countries. During some months, it was the top market for Thai rice. Iran accounted for over half of Denmark's cheese exports in 1981, and it was a leading market for Romania's livestock products. In addition, it was the second largest market for Australian sheep and New Zealand mutton.

The trade diversification policy and efforts to revive the livestock industry combined to make some interesting purchases in 1981. For example, Iran was the second major customer for fishmeal from Peru and Chile, buying over 42,000 tons from each country. Dutch exports of butter to Iran rose 30 percent to 30,300 tons in 1981, while West German shipments doubled—reaching 14,400 tons.

Recently the emphasis has shifted from agricultural exports to widespread distribution programs in order to reduce domestic shortages. At the same time, strong domestic demand caused farm exports to decline. The

area planted to cotton has declined sharply, and exports to the Soviet Union and East Asia dwindled. The area formerly planted to cotton has been shifted to corn and vegetables. On the other hand, Iran is interested in reviving exports of pistachio nuts, particularly to the United States. U.S. imports of pistachio nuts from Iran rebounded to about \$9 million in 1981.

### **Food Imports Rising Rapidly, Particularly from the EC**

Iran's agricultural imports have shown a marked upward trend since 1979, and despite financial problems and the war with Iraq, further gains are anticipated in 1982. The dependence upon imported food that had evolved in the late 1970's has been difficult to alter. In 1980, solving severe urban food shortages became a higher priority than concern with self-sufficiency. Furthermore, after the war with Iraq started, most of the constraints on food imports were lifted.

Iran's agricultural imports reached a record \$3.5 billion in 1981—up from \$2.7 billion in 1980 and about \$2 billion in 1979. Imports of livestock products increased rapidly as political turmoil crippled commercial cattle and poultry projects. Imports of sugar soared as the local output of sugar beets fell.

EC agricultural exports to Iran climbed to nearly \$1 billion in 1980 and approached \$1.3 billion in 1981—nearly triple the 1979 level. Thai deliveries of farm products surpassed \$500 million in 1981—triple the 1979 value. Australian shipments of sheep and wheat soared in the last 2 years, pushing the value of their sales to over \$600 million annually. In addition, Brazil has been a major supplier of soybean oil.

U.S. agricultural exports to Iran remain below the peak levels attained in FY 1975, but they did rebound to \$242 million in 1981—up from only \$8 million in 1980. In addition to these direct shipments, transshipments of corn and wheat through Canada were valued at about \$32 million in 1981.

Iran's imports of wheat and flour increased from about 1.6 million tons in 1980 to 2.1 million in 1981. This included 1.1 million tons from the United States, 750,000 from Australia, and about 152,000 from Turkey. Iran's wheat imports are likely to rise in 1982, as port problems are eased. Larger deliveries by Canada and the EC should offset smaller arrivals from the United States and Turkey. Strong demand in the cities where bread is sold at subsidized prices has kept the GTO busy searching for bargains in the world market.

Iranian rice imports soared to about 630,000 tons in 1981—up 34 percent from 1980. Shipments from Thailand reached 349,000 tons—nearly double the 1980 volume. Direct U.S. shipments were 112,000 tons last year. Although the United States did not ship any rice directly to Iran in 1980, part of the 152,000 tons shipped to the UAE went to Iran. Pakistan and North Korea are also sending rice. Recent GTO programs to provide more rice supplies, along with reduced consumer prices, have prevented traders in Dubai from doing much business in Iran.

Imports of feed grains remained steady at about 1.3 million tons in 1981—including 85,000 tons of U.S. corn purchased directly and 230,000 shipped through Canada. EC and Australian barley shipments exceeded 500,000 tons.

Iran's imports of live sheep from Australia and Mideast suppliers exceeded 3 million head in 1981.

Imports of beef rose to about 85,000 tons, mostly from Australia and Eastern Europe. Poultry meat imports increased sharply to 65,000 tons, including 28,000 from France.

Cheese imports totaled about \$145 million in 1981, including about \$60 million worth from Denmark and \$671,000 of U.S. cheese. Butter imports were valued at about \$100 million. The EC (mostly the Netherlands and West Germany) and Australia were the major suppliers.

Further gains in the production of wheat, barley, and vegetables may occur in 1982, but the output of livestock products is not likely to rebound until larger imports of feed grains begin arriving. Iran's exports of pistachio nuts may rebound moderately, but shipments of dates will remain at only token levels this year.

Agricultural imports may range between \$4 and \$5 billion in 1982, although wide monthly fluctuations will result from port problems. Financing obtained from bankers and food suppliers in Asia will help bolster the value of agricultural imports. Food imports from the EC will probably rise above \$1.5 billion, and the combined imports from Australia and Thailand may be near that value. Imports of U.S. farm products may decline because of financial problems and the personal attitudes of purchasing agents at the GTO. However, as the war ends and petroleum exports rebound to more than 2 million barrels a day, the outlook for U.S. sales could greatly improve. (John B. Parker)

## **Iraq**

### **Larger Imports Should Ease Shortages**

Following 3 years of astounding gains in per capita income and the availability of goods in Iraq, the war with Iran caused conditions to deteriorate seriously in 1981, and they worsened in 1982. The war caused a number of economic disruptions, and the general atmosphere was not conducive to investments for development. Government policies to improve the welfare of consumers by subsidizing food and creating new jobs in the public sector have remained, but the great cost of the war has contributed to a new concern about rising expenditures for those programs. However, ample food stocks that were accumulated before the war prevented any serious hunger problems.

A general drift away from economic and social relationships with the Soviet Union and closer business and financial affiliations with other Arab countries contributed to a change in food import policies. Semiluxury items were no longer excluded from import plans, and considerable purchases of dairy products, eggs, and beverages for the military and public distribution programs have been made in the United States and Europe. Socialist attitudes that frowned upon imports of some semiluxury food items have faded. The lack of funds, rather than policy, is now more of a deterrent to imports of canned foods.

In 1981, Iraq's total imports soared by more than \$4 billion to about \$15 billion (excluding military items), leaving a merchandise trade deficit of \$5 billion. The surplus capital that Iraq invested in foreign banks was seriously depleted over the last 2 years, and there were reports of loans in excess of \$30 billion from other Arab countries.

The dominance of petroleum in Iraq's economy and disruptions to pipelines and ports led to a drop in the



GNP in 1981, from the peak of \$35 billion in 1980. Agriculture's share of the GNP increased after declining to less than 10 percent in 1980. Industry and services were the growth sectors of the economy, but their expansion was relatively small in contrast to the traumatic slump in petroleum revenues.

### **Agricultural Production Steady**

Good rains in the winter and spring contributed to considerable gains in the wheat and barley harvests in the summer of 1981. Wheat production was estimated at 1.5 million tons, and barley output increased about 30 percent to 800,000 tons because of an increase in the planted area. Corn production continued to expand as the irrigated area on state farms increased. Efforts to increase local barley and corn production were related to the disruptions of Thai corn imports, which were previously unloaded at Basra.

Shortages of feed grains led to severe reductions in the output of eggs and broilers in the facilities that had been built as a part of public enterprises and cooperatives. Milk production also tumbled, and the slaughter of cattle accelerated in early 1982 because of escalating feed shortages and the fear that the cattle may be threatened by an intensification of the war.

The setback in the output of livestock products was almost offset by greater production of cereals and vegetables. The output of tomatoes, potatoes, onions, and melons reportedly increased in 1981. Fertilizer from the factory at Basra had been stored in rural areas before the war began, and vegetable growers were able to obtain adequate quantities at subsidized prices. Open market prices for vegetables were not so strictly controlled and monitored, and farmers responded to higher prices in the urban markets. Sharp hikes in military pay and benefits contributed to greater demand for fresh vegetables in smaller towns.

### **Agricultural Policy Problems Persist**

The great emphasis on the development of industry and urban services has lowered public investment in agriculture in recent years. However, current efforts to spur cooperatives and relax price controls on private farmers provided extra incentives for production of certain crops. Some of the formerly large farms have been converted into state farms or operated temporarily as cooperatives until the title of the land is definitely decided. The events of war have portrayed the need for new plans concerning the ownership of cropland, and these plans are very different from those designed by decision-makers taking advice from socialist countries. A new plan intended to provide more subsidies to spur private and commercial farms has been indicated in some recent policy statements.

Programs to encourage farmers to grow more wheat and barley were the first part of the new direction in agricultural policy. During the last 2 years, farmers were paid \$242 a ton for wheat, plus \$24 a ton for storing the crop. Furthermore, agricultural credit has become more readily available.

Cooperatives now contract with farmers to grow vegetables for the urban market, and the prices paid for potatoes, onions, and green peas this past winter were more than double the 1978-80 average. To top it off, the cooperatives have access to new trucks and cold storage facilities. Moreover, cooperatives marketing apples,

pears, peaches, and grapes from northern Iraq have cashed in on much higher prices in Baghdad in 1981.

### **Food Imports Remain Strong; U.S. Rice Sales Up**

Imports of wheat, which soared to about 2.3 million tons during 1979/80, fell to only around 1.3 million in 1980/81, because ships could no longer unload wheat at Basra. The wheat is now unloaded in Kuwait and then trucked to Iraqi flour mills. Australia, Iraq's major wheat supplier over the last 2 years, sent almost 500,000 tons to Kuwait for reexport to Iraq during the first 4 months of 1982—double a year earlier. Iraq now has a large fleet of trucks to move grain from ports in Kuwait, Jordan, and Turkey.

The value of Iraq's direct agricultural imports jumped to about \$2 billion in 1980, even though a considerable part of the cargo came through other countries in the last 3 months of the year. Disruptions in port facilities at Basra and Al Faw caused agricultural imports to decline slightly in 1981. The sharp setback in imports of wheat and rice was offset by larger purchases of poultry meat, eggs, beverages, fresh fruit, mutton, and tobacco. Imports of live animals and livestock products from the EC soared. The land trade with Turkey and Eastern Europe flourished and included a wide variety of food items ranging from tomato paste to wheat flour.

Rice imports soared to over 400,000 tons in 1980, including 268,000 tons from the United States. Imports of corn from Thailand exceeded 300,000 tons in 1980 but declined sharply in 1981.

Iraq now ranks next to Saudi Arabia as the largest Mideast importer of poultry meat. Total imports of poultry meat doubled in 1980, reaching 80,000 tons, and advanced another 50 percent in 1981. The leading suppliers in 1980 were Brazil, 28,000 tons, and the United States, 25,000. Iraq imported 88,000 tons of frozen chickens from Brazil and 31,000 from the United States during 1981.

Imports of eggs soared to about 40,000 tons valued at \$85 million in 1981. The United States, Hungary, Lebanon, Bulgaria, and the EC were major suppliers. Programs to provide eggs for breakfasts for soldiers and school children bolstered demand.

Iraq's imports of sugar increased to about 750,000 tons in 1981. Imports from the EC, Brazil, and Asian suppliers have risen as deliveries by Cuba and Czechoslovakia have declined. Imports of palm oil from Malaysia and Singapore increased to about 150,000 tons in 1980. Iraq's imports of vegetable oils may become more diverse in the future, with larger purchases of soybean, corn, and sunflower oil. Consumer preferences will be more important considerations in future purchases by state trading firms.

In the 1970's, Iraq was the world's largest date exporter, with shipments averaging 275,000 tons annually. China, the USSR, India, and the EC were major markets. Shipments of dates to the USSR through Turkey were about 30,000 tons in 1981, but exports to other markets plummeted.

Iraq imports over half of its food supply. Therefore, demand for food imports will rise, even if crops are good. Farm imports are likely to rebound to more than \$2 billion in 1982. This assumes that the use of Shuaiba in Kuwait and ports in Jordan and Turkey can continue.

The growing use of the port of Shuaiba in Kuwait has contributed to a recent shift to greater purchases of agri-

cultural commodities from Australia. Therefore, much larger agricultural imports from Asian countries and Australia are anticipated. Problems in obtaining livestock products from Eastern Europe could contribute to a rebound in purchases from the United States. (John B. Parker)

## Israel

### Agricultural Income Down; Inflation High

In 1981, Israel experienced severe inflation, an increased balance-of-payments deficit, and growing unemployment. However, its GNP grew by 4.8 percent, compared with 2.3 percent in 1980. The battle against inflation was the Government's chief economic goal, and it declined by 24 percent to 101.5 percent. Priority was given to dealing with the balance-of-payments deficit that the country continues to incur. Israel's trade balance deteriorated somewhat to an estimated \$4.4 billion, from \$3.8 billion in 1980. Higher imports, partly attributed to a lowered purchase tax and partly due to the restocking of inventories, explain some of the increase. More importantly, however, was the appreciation of the dollar against most European currencies and the continuing weakness of the European economies. Since the currencies of Israel's major trading partners were lower in dollar terms, the dollar value of Israel's exports was lower than in 1980. On the brighter side, stability in world oil prices helped keep Israel's trade deficit from greatly expanding, and the oil bill remained about the same as in 1981. Oil imports took up 21 percent of Israel's total foreign exchange earnings.

Discounting inflation, farmers' net incomes—including returns from invested capital—declined by 8 percent in real terms and are now 21 percent below the 1978/79 value. Agriculture's contribution to the GNP increased marginally to 5.3 percent, slightly below the average of the last 5 years. Agricultural exports were slightly below \$1 billion and were 17.2 percent of total exports. Meanwhile, agricultural imports were over \$1.2 billion, about 16 percent of total imports. The value of agricultural exports covered nearly four-fifths of farm imports, slightly less than in the previous 2 years.

According to preliminary Israeli data, total agricultural output for 1980/81 (the year ending in October) increased by a little more than the rate of inflation and was up in real terms by 1.5 percent. Wheat and citrus output declined, while cotton and vegetable crops showed marked increases.

Israel's total grain production for 1981 was slightly below that of the previous year. The wheat area remained at about 95,000 hectares, and production was 215,000 tons. Imports since the mid-1970s have fluctuated around 400,000 tons, reaching a record 525,000 in 1979. Feed grain production, primarily barley, is minimal and does not reach commercial channels. Israel's feed grain requirements are totally met by imports, primarily from the United States.

Since 1974/75, Israel's feed grain requirements have increased slightly, from 1 million tons that year to 1.3 million in 1981/82. Total feed grain use in 1980/81 increased by 7.7 percent, reflecting a larger output of livestock and products during the latter half of 1981. The larger production was partly due to the reinstitution of some of the food subsidies that had been eliminated a

year earlier. The consumption of the subsidized livestock products increased rapidly, and the result was a sharp increase in feed grain disappearance. Nevertheless, this has likely peaked, and consumption should slow for the rest of 1982.

Israel continues to excel at cotton production, with a record 91,000 tons of lint in 1981. However, low world market prices and falling domestic sales keep troubling cotton producers. Beginning in early 1981, Israel's textile industry was faced with declining demand both at home and abroad, and the fashion industry had particular trouble because of the high value of the U.S. dollar in terms of European currencies. Israel's main market for textile and fashion products is Europe, and buyers there complain about high prices. Since the Israeli textile industry is not structurally strong, the decreased demand and increased costs have caused some firms to close. Moreover, because many of the textile plants are in development areas, where employment in light industries sometimes accounts for half of total employment, political problems have evolved.

In 1981, Israel turned out a record 135,000 tons of cottonseed—the only major oilseed produced in the country. Israel continues to be the largest per capita importer of U.S. soybeans, which are still the main source for both vegetable oil and protein meal. Imports of beans amounted to 400,000 tons in 1980 and were estimated at 430,000 for 1981. Current 1982 forecasts of bean imports are 445,000 tons. More than 90 percent of the beans are normally crushed, and the meal is used in the poultry and livestock sectors. The oil produced is consumed locally and is supplemented by imports of about 10,000 tons. Historically, the United States has been the sole supplier of beans and soybean oil, and since the Government is the sole importer of soybeans, this situation is likely to continue as long as U.S. supplies are allowed to be freely exported.

The decline in the area planted to citrus continues. Part of the lost acreage is being used for urban development, while a larger portion is being replaced with avocados, particularly in western Galilee. One of the reasons for the acreage decline is the continuing drop in the profitability of citrus production. Shamouti oranges and grapefruits are the most heavily affected by poor profits. Lemon and tangerine returns continue good, and their output is increasing.

Following the shortfall in avocado output in 1980/81, current production is back to normal at 37,000 tons. About three-fourths of the yearly outturn is exported. Production is expected to increase rapidly over the next 5 years, eventually reaching 100,000 tons or more. Marketing problems for such large quantities are anticipated, and Israel is making efforts to find new customers.

Early in 1981, the Government of Israel completely reversed its subsidization policy and a large portion of basic food items were once again heavily subsidized. For example, subsidy levels as of November 1981 included 77 percent of the retail price for milk, 71 percent for eggs, 46 percent for frozen broilers, and 13 percent for fresh broilers. While no exact data are available, it is believed that standard bread is now subsidized at 125 percent of its retail price.

There is little doubt that cheap food played a considerable role in keeping Israel's inflation rate at slightly more than 100 percent in 1981. Early in 1982, there were two successive changes in subsidized food prices, with a resultant 32-percent increase in the prices of most subsidized food items. The policy of reducing food subsidies is likely to continue.



## **Water and Future Markets for Agricultural Produce Worry Planners**

A number of factors are affecting the production trends of Israel's agriculture. Israeli farmers continue to heavily depend on the export market. Producers of products such as flowers, avocados, and (indirectly) citrus, export more than 90 percent of their total outturns, and most of that goes to European markets. While export prices in terms of European currencies increased, their relative weakness in relation to the strong U.S. dollar caused the real income of Israeli exporters to diminish. Even though the Bank of Israel devalues the shekel continuously against the dollar in order to maintain the competitiveness of Israeli exports, the devaluation did not keep pace with the internal rate of inflation.

Over the longer term, Israel faces a number of problems in its agricultural sector. One of the primary ones is the availability of water for irrigation. More water will be needed, because urbanization is forcing more intensive farming on less land, and more intensive agricultural methods require more irrigation. The water that is available for agriculture is already under heavy constraints, mostly because of limited possibilities for significant increases and the massive investments essential to procure additional water. Along with water, energy is an important input for modern agriculture, and the costs of energy will somewhat define agriculture's scope.

Approximately two-fifths of Israel's agricultural output is slated for export. In addition, these exports have an exceedingly high value-added rate, such as 80 percent for avocados, 65 to 87 percent for citrus, and an overall rate of about 50 percent. Agriculture of this nature has a high demand elasticity; it can take advantage of boom conditions and yet is more vulnerable to the vicissitudes of international markets and pricing. Also, in Israel this type of highly sensitive market-oriented production is concentrated in the moshavim (cooperatives), which increases the instability of this agricultural subsector.

According to projections by the Israeli Government, by 1985 about half of Israel's agriculture and 60 percent of its income will largely depend on events occurring in international markets. Currently, the shift toward export-oriented agriculture has occurred and continues to grow at a time when major markets (e.g. Europe) have become less and less favorable from the Israeli standpoint, particularly as competition increases with new admissions to the EC.

Israel's total agricultural exports for 1981 are estimated at \$981 million, up 2.8 percent from a year earlier. However, as previously mentioned, the dollar value of Israel's exports was lower than in 1980. As a result, export earnings were flat, despite a 15-percent increase in volume. Israel's principal exports remain oranges, cotton, and flowers. Its main markets continue to be the United Kingdom, West Germany, and France.

For the first 10 months of 1981, Israeli agricultural exports to Egypt totaled \$12.5 million, quadruple the value of the comparable period a year earlier. The most important commodities were meat and poultry, which totaled \$5.5 million, followed by oilcake and concentrates at \$4.3 million. In March 1980, a memorandum of understanding was signed between Israel and Egypt, outlining areas of future cooperation and technology sharing.

## **1982 Grain Crops Poor; Imports Projected To Rise**

A very dry December and January affected both soil and moisture conditions, causing an almost complete collapse of the barley crop and a sharp cut in the wheat output. Wheat production will be about 145,000 tons, down from 215,000 in 1981. The extremely dry winter has also affected the availability of roughage and pasture for cattle and sheep.

As a result, wheat imports are projected sharply higher for 1982/83. Normally, Israel imports between 400,000 and 500,000 tons annually, all from the United States. Current projections are at 600,000 tons, which would be a record. At the same time, feed grain imports are also likely to increase because grain will need to be substituted for lost roughage. With the exception of barley, most of which is imported from Canada, all feed grains used to be bought from the United States. During 1981/82 however, Israel bought 150,000 tons of milled degermed corn from South Africa. As a result of this new development, and as barley purchases are again increasing, the U.S. share of Israel's feed grain imports is likely to decline from 90 percent to 75 percent.

With an excellent citrus harvest in 1981/82, and with overseas demand reportedly down somewhat, there is a surplus of citrus. Furthermore, the surplus consists mostly of lower quality fruit. As the Israeli Citrus Marketing Board maintains, only the highest quality fruit is being exported to Europe, in accordance with EC standards. As a result, there has been a buildup of lower grade citrus on the domestic market. There are also 800,000 tons of citrus available for processing. Normally, about 500,000 tons have been available, and some citrus has been destroyed.

Israel is concerned about what will happen to its agricultural exports to the EC after Spain and Portugal become members. Of particular apprehension are shipments of oranges and other citrus products. Further discussions on this issue and on tariff matters are planned for 1982. (Michael E. Kurtzig)

## **Jordan**

### **The Economy Expands as Agriculture's Share Shrinks**

Jordan's economy, on an upward trend for the last decade, continued to grow during 1981, and the bright outlook is expected to extend through 1982. The exploitation of phosphate and projects to develop other minerals, such as oil shale, potash, and sand for glass, are getting priority. The young and growing population of some 2.5 million and the expanding economy are reflected in an ever increasing demand for commodities, evidenced by a 22-percent increase in imports in 1980. Last year's imports may have been even higher. Jordan's per capita GDP is increasing at an estimated 20 percent a year and inflation is currently near 10 percent. Jordan's large balance-of-trade deficit is more than offset by large grants from other Arab countries, development funding from foreign aid donors, and foreign exchange remittances from over 500,000 Jordanians living abroad.

In 1981, Jordan's wheat harvest, at about 56,000 tons, was poor and will cover only 13 percent of the needed 425,000 tons. The Ministry of Supply has already indicated plans to purchase between 350,000 and 400,000 tons this year, because a very poor crop—perhaps as low as 15,000 tons—is projected for 1982. Barley production, at 16,000 tons, will be supplemented by 40,000 tons of barley imports and 200,000 tons of corn purchases, both by the private sector. Jordan imported 47,000 tons of rice in 1981, and the same amount is estimated for 1982. This year, the U.S. share should be higher because the private sector is now authorized to import U.S. long-grain parboiled rice.

The output of Jordan's principal vegetable oil—olive—is expected to expand as a 20-year tree planting program continues. However, last year was an off year for olives, and the crop was well below average at 8,000 tons, compared with a record 44,000 in 1980. About 75 percent of each crop is crushed for oil, and most is consumed domestically. Because of adequate stocks, olive oil imports have recently been banned.

Jordan is an exporter of a number of fruits and vegetables, and growth in this sector has been rapid in recent years, with modern practices and plastic greenhouses and tunnels allowing two harvests a season. Jordan finds ready foreign markets for these crops, especially those produced in the early-winter off season when prices are high. This produce will aid in offsetting the cost of imports of meat and cereal.

Sheep and goats provide only a small part of Jordan's red meat consumption, and with traditional grazing techniques, the output has dropped since 1975, as dry weather has destroyed pastures. Production of red meat averaged about 7,000 tons during 1976-80, 22 percent below the 1973-75 average; however, it is expected to grow in the future. The Ministry of Agriculture plans to establish a sheep fattening feedlot in the Disi area in south Jordan. The feedlot would handle 100,000 head of sheep and cattle annually. Half will be local lambs and half imported.

Poultry production, which grew rapidly from 1976 to 1980, has leveled off and shows no current indications of expansion. Meat output hit 28,000 tons in 1980, and egg production reached 360 million units. Jordan exported 60 million eggs to Iraq in 1981. These shipments are projected to reach 80 million this year.

The relative importance of agriculture has declined from 14.3 percent of GDP in 1971 to 7.6 percent in 1980. To a considerable extent, this decline has been due to repeated droughts in the nonirrigated areas, seriously hurting both crop and livestock production. On the other hand, the use of modern technology in commercial farming is increasing in the irrigated Jordan Valley. Off-season vegetable production using plastic cover and drip irrigation is highly successful. Still more gains from irrigated farming are likely, especially if disease and insect problems, such as nematodes and tobacco white fly, can be eradicated.

### Imports Up; Trade Opportunities Improve

Jordan imports all of its petroleum needs, two-thirds of its food, and a large share of raw materials and finished goods. It has consistently run a large trade deficit. Total imports were \$2.4 billion in 1980, with exports of \$396 million. Approximately a quarter of Jordan's exports are agricultural, principally fruits and vegeta-

bles. In 1980, it had a favorable balance-of-payments of \$334 million because of remittances and grants.

The United States was Jordan's principal supplier in 1980 and in 1981, totaling \$407 million and \$727 million, respectively. Agricultural products amounted to \$35 million in 1980 and \$90 million in 1981, accounting for 8 to 10 percent of Jordan's agricultural imports. In 1980, the United States supplied about 22 percent of the wheat imported, 58 percent of the corn, 6 percent of the rice, 71 percent of the oilseed cakes, 26 percent of the tobacco leaf, and small amounts of other agricultural items. Prospects for continued trade and investment in Jordan remain favorable for U.S. commercial interests.

Jordan's second 5-year plan (1981-85) was already 1 year into implementation before it was approved. It calls for investment of \$10 billion and calculates an annual growth rate of 11 percent. This may be optimistic given past performance, but recent healthy economic growth should continue, provided regional security does not deteriorate and present levels of grant and transfer payments continue. The plan's emphasis is on industry and mining, giving these sectors an allocation of 34 percent. However, when an allocation of 24 percent for irrigation is added to 10 percent for agriculture, this sector's share comes into balance.

The Government has announced it will buy grain at prices to be released later. The 1981 prices were relatively high, and with a small grain harvest this year, the price will surely stay high. In 1981, large quantities of tomatoes were purchased by the Government in order to prevent farmer losses, but this is not expected to continue because the Government is investing heavily in tomato processing plants.

On the consumer side, such important items as bread, sugar, and rice are subsidized. This year, however, the cost of subsidization should be sharply reduced, because current world prices for many basic consumer items are lower. The Government controls a number of other foods and services through a system of price ceilings.

Jordan has taken action to facilitate the movement of agricultural and nonagricultural products imported by Iraq via the port at Aqaba or through other countries. It has also signed contracts to supply Iraq with fruits, vegetables, and eggs. These agreements are being implemented by the private sector.

Jordan receives substantial assistance in loans and grants for agriculture and related fields. The United States has been a principal supporter of agricultural programs and, in September 1981, signed a new \$5.6 million grant. Additional assistance includes loans and grants from Iraq, Kuwait, the EC, the International Fund for Agricultural Development, and the World Bank.

The 1982 prospects for agriculture have already been diminished. Rains were too late and too light, greatly reducing the wheat and barley crops. In the irrigated sector, mid-January frosts hit tomatoes and squash in a normally frost-free zone, causing considerable damage. Therefore, food imports may be up this year.

Jordan's free enterprise economy has traditionally provided opportunities for the sale of U.S. goods and services, and even in good crop years, U.S. farm products and equipment have been in demand. Now, the capital, Amman, is becoming a center for serving markets in other Arab countries, especially Iraq. This offers possibilities for establishing a presence in that lucrative market through cooperative efforts with Jordanian companies. (H. Charles Treacle)



## Kuwait

### The Economy Flourishes Despite Drop in Oil Exports

Last year, improved credit facilities, foreign investments, and government expenditures on industrial projects helped offset a \$4-billion decline in petroleum revenues. Petroleum exports declined from \$19.7 billion in 1980 to about \$17.4 billion in 1981. Exports of fertilizer and chemicals were about \$100 million in 1981. Industrial output increased over 20 percent in 1981. New factories have been built to manufacture consumer goods, including soft drinks, fruit juices from imported concentrates, chewing gum, soybean oil, wheat flour, and peanut oil.

Kuwait plans to encourage more investment in agriculture through a combination of public projects, subsidies, and high price supports for certain crops. However, plans to develop new farms near the border with Iraq were delayed by the Iran-Iraq war.

Fluctuations in imports of fresh vegetables from Jordan, Lebanon, Iraq, and India have caused Kuwait to concentrate on larger local production. The output of vegetables has increased substantially in recent years, although the quality has been below expectations. Tomato output in 1981 was nearly double 1978's 11,000 tons. High prices encouraged local farmers to produce about 6,000 tons of cantaloups and 15,000 tons of cucumbers in 1981. Onions and potatoes have become popular spring crops. Experimental farms have demonstrated that many types of vegetables can be grown, and some farmers are using greenhouses. Strawberries have become popular, and farmers now have fields where customers can pick their own berries.

Kuwait imports about 1 million sheep annually. The availability of local seasonal pastures varies. When winter rainfall is abundant, the desert turns green for several months. However, the recent dry winter did not provide the extra forage that last season did. As a result, larger imports of animal feed will be needed for the live sheep arriving from Australia and for the cattle from Africa. Larger beef imports and disease caused a decline in live cattle purchases during 1981. The local output of poultry meat increased to about 22,000 tons in 1981, and egg production rose to about 12,000 tons.

### Imports Rose in 1981 and May Climb Again in 1982

Kuwait's total imports of farm products increased from slightly over \$1 billion in 1980 to about \$1.3 billion in 1981, including transshipments through the port of Shuwaik. This figure does not include shipments to Shuaiba that were destined for Iraq. Rice imports increased to 110,000 tons during 1981 and advanced further in 1982. Pakistan's rice exports to Kuwait fell from 47,000 tons in 1980 to 20,000 tons last year, but the arrival of 18,000 tons from Australia, a new supplier, helped fill the gap. U.S. exports of rice fluctuated widely. The volume was up to 14,000 tons in 1980, but it fell to 1,492 in 1981.

Last year, Australia sent 251,000 tons of wheat to Kuwait for use in their flour mills. Imports of feed grains continued to rise to about 200,000 tons. Barley

imports reached 100,000 tons. About half of the barley came from the United States. Australia and the EC provided the remainder. Thailand supplied most of the 85,000 tons of corn and 10,000 tons of sorghum that Kuwait purchased.

Beef imports increased markedly in 1981, to about 11,400 tons. Australia sent nearly 4,000 tons. Denmark, France, and Argentina were other major suppliers. Mutton imports rose to about 14,000 tons, with considerably expanded shipments from New Zealand and Turkey.

Denmark remained the leading supplier of frozen poultry in 1981, even though gains by Brazil and France were substantial. Brazil supplied 81 percent of the poultry meat imports, which surpassed 65,000 tons—double the 1979 volume. Imports of chicken parts and turkeys from the United States continued upward, despite strong competition.

Imports of dairy products also soared. Improvements in the average diet and changes in the composition of the foreign work force contributed to the boom in sales. Imports of dry milk rose to nearly 18,000 tons—double the 1978 level—mostly because of larger arrivals from Denmark, the Netherlands, and Australia. Imports of cheese surpassed 7,500 tons, also double the 1978 volume. The EC, Australia, and Eastern Europe were the major suppliers.

Imports of apples increased to about 34,000 tons, nearly double the 1978 volume. The United States is sharing in Kuwait's booming imports of apples and pears, despite competition from the EC, Chile, and Australia. Total imports of horticultural products are now valued at \$350 million annually, and the U.S. share is about 8 percent. The Kuwait Fund for Arab Economic Development has made some loans designed to bolster future food deliveries by Sudan, Oman, and Somalia. Kuwait usually imports over 25,000 tons of animal feed and 20,000 tons of peanuts and sesame from Sudan.

Imports of processed foods continued to rise rapidly, despite increasing local output of consumer-ready items. A U.S. firm now sends ingredients to Kuwait for its expanding output of fruit drinks and carbonated beverages. Kuwait has continued to import more candy, honey, and snack foods each year. It has the world's highest per capita sales of imported chocolates, because many immigrant workers buy them in Kuwait and take them home for gifts to children and friends.

U.S. agricultural exports to Kuwait increased 28 percent to a record \$60 million in 1981. Yet, our share of this booming market remained below 5 percent. Iran is no longer an important customer for Kuwait's traders, and subsidies are too great in Saudi Arabia for buyers to make purchases at higher prices in Kuwait. Thus, two important customers for Kuwait's transit trade have virtually stopped having an impact.

U.S. exports of soybeans (\$3.2 million) and apples (\$865,000) remained steady in 1981. Sales of U.S. poultry parts, barley, beef, eggs, honey, bakery products, and almonds did well. Our exports of dry beans dwindled because of stronger competition from Turkey, and U.S. shipments of soybean meal declined 49 percent to 7,000 tons because of greater competition from Latin American meals.

Kuwait's total agricultural imports may rise to \$1.7 billion in 1982. U.S. agricultural exports could approach \$100 million if expected gains in the sales of soybeans, apples, nuts, and canned foods occur. (John B. Parker)

## Lebanon

### War Ends 1981 Economic Gains

The invasion that began in June 1982, places economic activity in turmoil and the future in doubt. This conflict has placed real stress on the food supply, creating both emergency short-term needs and increased import requirements for 1982. Since the fighting began, producer activities have been disrupted, field and tree crops ruined or temporarily abandoned, and transport halted. Beirut, the capital and a major port, has been encircled, and shipping has been idled. Associated elevator and milling activities have been brought to a standstill.

Lebanon's Central Bank estimated that the 1981 per capita GDP was up about 29 percent from 1980. This growth occurred despite frequent, sporadic outbreaks of violence. Economic progress during 1980 carried through to the first quarter of 1981, but a serious outbreak of hostilities in the spring brought the economy to a standstill. With reestablishment of concord, the economy slowly regained momentum. Commercial activity began to pick up. The economy was led by a very active construction sector, which was stimulated by the remittances of some 300,000 Lebanese working abroad. Security remains the one most important factor and the biggest drawback in the country's ability to cope with its considerable political, social, and economic difficulties. In the past, despite the uncertain security situation, the economy continued to be resilient, and it was an attractive commercial and financial center in the Middle East.

### Production Mixed; Imports Rise

Winter grain production has been steadily declining in the past several years. An increase in the price of arable land has resulted in a marked shift from grains to cash crops, particularly vegetables and fruits. Some winter grain area has also been lost to illegal crops, particularly hashish from Indian hemp, because of the lack of policing due to the civil unrest. The Cereals and Sugar Beet Office has estimated the 1981 wheat crop at about 25,000 tons, one of the lowest ever and some 28 percent below the 1980 harvest. Most other crops, except olives, did as well or better than in 1980. Olives had an off year and were estimated at only 8,000 tons, one of the lowest crops on record.

Lebanon has a small cultivated area of only 220,000 hectares, about a third of which is irrigated. Most of the best agricultural land is in the Biqa Plain, where, despite some security problems, favorable weather enabled this northern area to nearly reach the output achieved before the 1975/76 civil war. In the south, however, production of tobacco, vegetables, and all subsistent crops remained very low because of continuing unrest.

In recent years, Lebanon has made some progress with the use of greenhouses that have allowed increased production of off-season fruits and vegetables. Also, some progress has been made in restoring the poultry industry that was heavily damaged during the war.

Agricultural products account for about 18 percent of the total value of Lebanon's exports. Lebanon has traditionally shipped fruit to Syria, Saudi Arabia, Kuwait, and Jordan. Agricultural exports in 1981 were estimated at \$230.3 million, compared with \$217.7 million in 1980, but farm imports, at \$490.5 million, were more than double exports. However, Lebanon does transship considerable quantities.

In 1981, total U.S. exports to Lebanon (including transshipments) reached \$295.7 million, slightly below 1980's \$303 million. About \$95 million worth were agricultural—mostly wheat and wheat flour which accounted for about \$31.5 million, and corn valued at \$20.3 million. Total Lebanese exports to the United States were only \$18.5 million, compared with \$32.6 million in 1980. Of these, agricultural shipments were some \$14 million, 20 percent above 1980. Oriental leaf tobacco accounted for 95 percent.

U.S. agricultural exports to Lebanon were expected to drop precipitously in 1982, partially because of a sharp decline in wheat sales. For example, at a recent Lebanese tender for 175,000 tons of wheat, the U.S. share was only 50,000 tons, while the remainder went to the EC and Uruguay. This is a first for Uruguay and the EC associate, Greece. Uruguay is supplying 25,000 tons, and Greece 30,000 tons. It has been suggested that U.S. interest in the Lebanese market has cooled because of the civil strife that portends unloading problems and delays. The June 1982 hostilities may, however, change the pattern and character of import needs.

### Outlook for Agriculture Is Bleak

A recent study by the Food and Agricultural Organization (FAO) suggests a bleak future for Lebanese agriculture if present trends are not altered. The study found that:

- Some of the most fertile lands are being encroached on by urban sprawl and are being used for nonagricultural purposes.
- Legendary forests are being ravaged, and pastures are being neglected, rendering them less capable of supporting livestock.
- Water and irrigation facilities are being wasted and are deteriorating.
- Agricultural labor is disappearing, and there is a lack of mechanization, given the scarcity of labor.

The study also deplores the paralysis of the extension service and the fact that many marketing and processing plants have been destroyed. In addition, it notes the considerable loss of foreign agricultural markets.

In order to help the country gain greater food self-sufficiency, measures to reverse this trend were incorporated in a 5-year development plan proposed by the FAO representative for adoption by Lebanon. Lebanon does not have the arable land to become self-sufficient in cereal, but it could reach economic self-sufficiency with increased exports of fruits, vegetables, and other products. Implementation of these plans and policies, as with collection of statistics, depends on the security situation, and the Government has had great difficulty in implementing its intended policy. For example, customs duties have been low considering the traffic, because an increasing volume of imports enter through illegal ports, avoiding enforcement of duties.

Furthermore, the strife has prevented the Government from purchasing domestic wheat and barley, although it does continue to set support prices. In the autumn of 1981, the Government was successful in the distribution of seed barley at subsidized prices, and in May 1981 it placed a prohibition on the export of feed in order to keep prices low. However, since this hurt the millers and trade with Libya and Saudi Arabia, it was later amended



to permit exports under certain conditions. If security improves, the grain handling and storage capacity in the Beirut and Sebastia ports will allow annual imports of over 1 million tons of grains and oilseeds. Therefore, the Lebanese market may have considerable potential. (H. Charles Treackle)

## **Saudi Arabia**

### **Imports and Production Rising Rapidly**

Spurred by record petroleum revenues, spectacular economic development continued throughout Saudi Arabia in 1981. Banking activities proliferated, and an easy-credit policy contributed to a boom in business investment and consumer demand. Competition for the Saudi market has intensified, and this has contributed to a lower inflation rate and a reduction in marketing margins.

Saudi Arabia's total exports peaked at a record \$113.3 billion in 1981, up from \$102.5 billion in 1980 and only \$37.9 billion in 1978. Petroleum accounts for over 98 percent of Saudi exports.

Consumer demand increased about 10 percent in 1981 because of substantial gains in the standard of living and higher wages paid to foreign workers. The proportion of the 3 million workers from South Asia and Yemen, who receive relatively low wages, has declined while the number from the United States, Europe, and East Asia, who receive relatively high pay, has increased. The per capita income of the 8 million local residents continues to rise as more rural dwellers move to rapidly growing urban centers.

Efforts to disperse the petroleum wealth to all sections of the country and all sectors in the economy have further bolstered consumer demand. The GNP increased about 12 percent in 1981, to about \$151 billion, and the 7-percent inflation rate left a real growth of 5 percent. This was far less than the unusual increase of 80 percent in 1980, following the doubling of petroleum prices.

After the 1979 hike, Saudi Arabia became an important factor in world banking and trade. Its trade surplus soared from \$18 billion in 1978 to \$72 billion 1980 and about \$79 billion in 1981. Foreign investments by Saudi Arabia now exceed \$150 billion. Saudi Arabia ranks next to Japan and West Germany in foreign exchange reserves, and it is one of the few countries where foreign investments nearly equal the total GNP.

### **Agricultural Production Soars**

Overall agricultural production increased nearly 14 percent in 1981. Astronomical subsidies contributed to a 28-percent rise in wheat production, to about 275,000 tons. This was more than five times the 1971-73 average. The greater use of machinery and improved seed has contributed to the rise. Procurement of wheat by the Grain Silos Organization exceeded 100,000 tons last year.

A considerable shift from millet and sorghum to wheat has occurred among farmers in the Quassim and Jizan areas. Millet production is now only about one-tenth the level it was a decade ago (152,000 tons in 1970). Thus, the great gains in wheat production appear more impres-

sive than the growth in total grain output, which rose to about 500,000 tons in 1981.

The surge in the area planted to wheat has resulted in the crowding out of less profitable cereal crops. In addition to the drop in millet, sorghum production has remained in the vicinity of 100,000 tons annually in the last several years. This is only about half the 1970 level. Barley output has also shown little growth, remaining below 30,000 tons annually. In contrast, more corn has been planted in irrigated areas near Jizan, and output may soon surpass the volume of barley produced.

Livestock projects have become popular investments in recent years. A crash program to develop dairies near cities has contributed to greater imports of cows from Europe and North America. About 5 million sheep are imported annually, and subsidized feed is used. Poultry projects continue to expand, although more foreign technicians are needed.

The output of livestock products increased about 29 percent in 1981—double the overall rate of gain for farm items. Broiler operations expanded near major cities, and the output of poultry meat soared 56 percent to about 81,000 tons. Egg production increased about 35 percent to nearly 60,000 tons, providing for over half the local demand. Nevertheless, egg prices remained near \$2 a dozen. Prices for beef and mutton are still relatively high. Local beef output increased to about 22,000 tons last year.

Attractive prices and improved marketing facilities have caused more farmers to take advantage of the subsidies and credit opportunities offered when they produce vegetables. Total vegetable production increased to about 2 million tons in 1981. Watermelon output expanded by about one-fourth to approximately 770,000 tons. Tomato production increased 11 percent to about 560,000 tons. Very high yields were obtained from some of the hybrid varieties of tomatoes. Most of the tomatoes are grown in the cooler season, and prices during the surplus period in May are less than half the scarcity period in August. The output of onions during the winter has soared to over 100,000 tons annually. Seasonal exports of melons and tomatoes to the Gulf countries, Iraq and Lebanon, should approach \$50 million in 1982.

A wide variety of vegetables are grown during the winter in irrigated areas near cities. Yields for lettuce, cabbage, celery, and turnips are excellent. Demand for these vegetables has increased markedly as the number of foreign workers from developed countries has risen.

Following the special vegetable crops grown in the winter, alfalfa is often produced in the spring. Melons or eggplants are grown during the summer. The output of alfalfa now exceeds 1.3 million tons annually. Multiple cropping has greatly increased as farmers have mechanized. Custom planting and harvesting of cereals and alfalfa has also contributed to the increase in multiple cropping.

Also, Saudi financing for the World Food Program recently included about 7,000 tons of Saudi dates. The shortage of dates from Iraq and Iran has contributed to a rise in Saudi Arabia's commercial exports to the Mideast, although the volume is still below 11,000 tons. Subsidies for the better care of date trees contributed to a rebound in output. Excellent winter rains could boost the 1982 date output to 400,000 tons—up from about 350,000 in 1981.

## Subsidies Encourage Agribusiness Investments

Programs to bolster agricultural output are scheduled to accelerate in the coming year. Saudi Arabia already has some of the most elaborate farm subsidies found anywhere in the world. Efforts to disperse some of the petroleum wealth in rural areas have included more benefits for farmers each year. The procurement price for wheat is \$1045 a ton or \$28 a bushel. In addition, farmers receive free seed and interest-free loans from the Agricultural Credit Banks.

The 50-percent payment for animal feed was increased to about 70 percent for imported barley in 1981. The subsidy for fertilizer is 50 percent, and for farm machinery, it is 45 percent. The subsidy that has attracted the greatest attention recently has been the one that provides payments for purchases of certified dairy cattle and for the cost of their air transportation to Saudi Arabia. Technical contracts to start agribusiness ventures are also subsidized.

New factories that will produce soft drinks, bakery products, and processed food items are opening in the industrial parks near large cities. The facilities in these parks are provided at a low cost, and necessary loans are easily arranged.

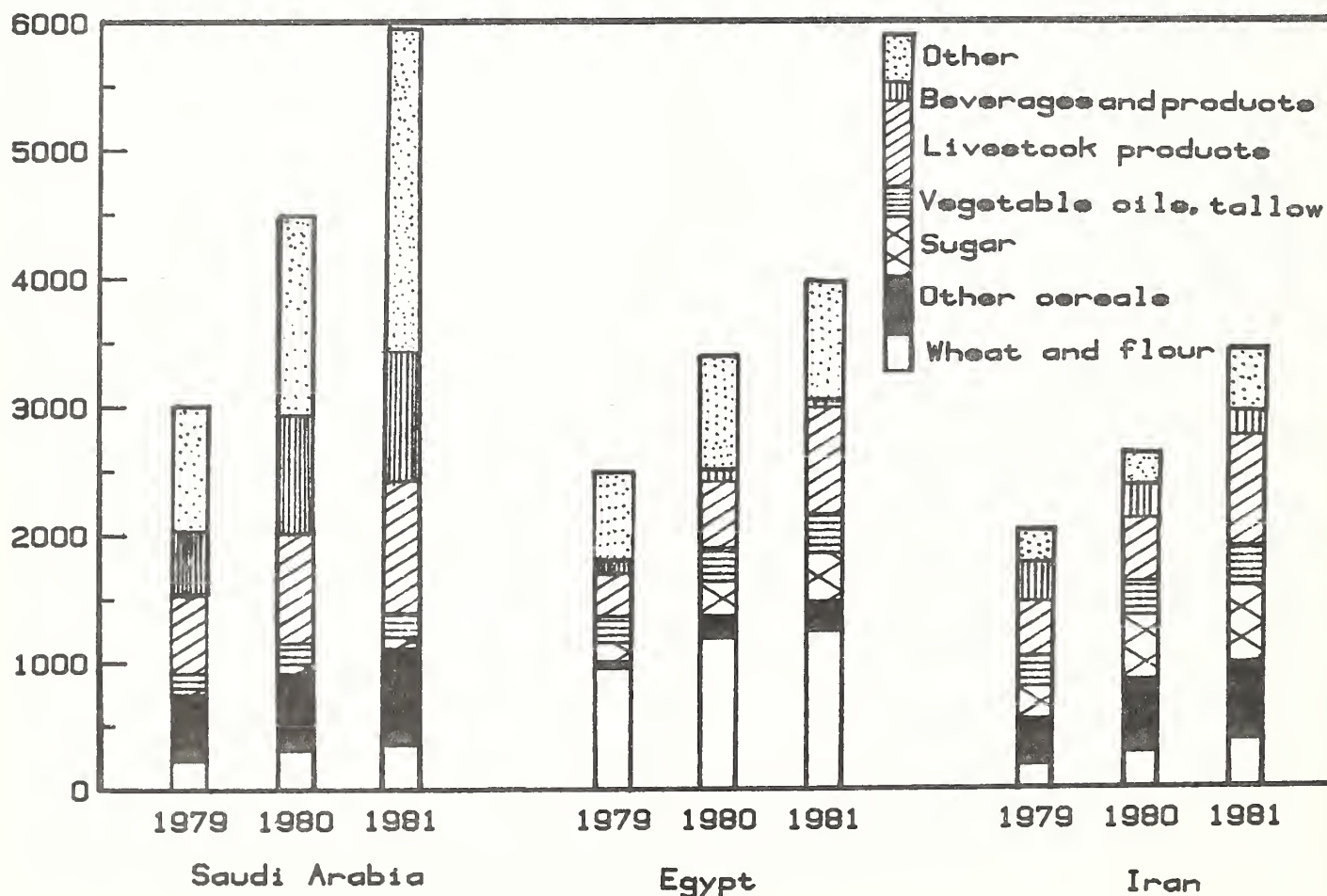
For certain types of food, the Ministry of Commerce provides subsidies to importers who are willing to keep their profit margins within specified price guidelines. The goal of the import subsidy policy is to control inflation and provide a mechanism for improving the quality of food offered for sale in Saudi Arabia. The subsidy program was effective in reducing inflation for food prices in the last 2 years. Yet, grocery prices in Saudi Arabia are still about one-third above retail prices in the United States.

Further efforts are also underway to reduce the costs of distribution. New port facilities in Jeddah, Dammon, and Yanbu now handle containerized cargo. Excessive charges by some private firms handling unloading at ports caused Saudi Arabia to nationalize most port facilities. The Saudi Port Authority charges a standard 1 percent of the invoice amount for unloading imported items. Since most processed foods enter duty-free, this is one of the lowest costs per unit paid by importers anywhere in the world.

Now that many of the infrastructural problems have been solved, the question about the saturation of the market for processed foods has arisen. About one-third of the 8 million permanent residents of Saudi Arabia now have an adequate diet. Another third are rapidly

## Agricultural Imports by Saudi Arabia, Egypt and Iran

Million dollars





upgrading their diet. For the poorer third, a lot of improvement is expected in the future.

### **Modernization of Food Marketing Stimulates Imports**

Remarkable improvements in the average diet and in providing food for millions of foreign workers contributed to the ascension of Saudi Arabia as the top food importer among developing countries. The value of Saudi agricultural imports increased about 33 percent in 1981, to approximately \$6 billion—double the 1979 value and six times the 1976 level. Modernization of food marketing and ports, combined with wider dispersion of petroleum wealth, contributed to the boom in food imports. About 83 percent of the calories consumed by the average resident was imported in 1981. The wealthier Saudi families now have an average daily per capita caloric intake of about 3,000, and foreign workers have a higher average.

Food imports have become more diversified in recent years. Cereal and products accounted for about one-fifth of the value of Saudi agricultural imports in 1981, while beverages made up about one-sixth. Saudi Arabia was the world's largest importer of poultry meat, fruit juices, live sheep, and tomato paste in 1981, and the second largest importer of wheat flour. It now ranks among the world's top 10 importers of rice, milk, butter, cheese, bakery products, peanut butter, and a number of canned foods. Imports of cereals in 1981 were unusually large because of programs to build stocks held by the Grain Silos Organization, the opening of new ports and flour milling facilities, and high subsidy payments for barley imports. Total grain imports increased to about 4.5 million tons, at least 1 million above the previous year.

Larger imports of U.S. wheat offset smaller purchases of flour. The United States provided about one-third of Saudi Arabia's combined imports of 1.2 million tons of wheat and flour in 1981. However, U.S. shipments of wheat flour fell to 120,000 tons in 1981—one-third below the 1976-78 average.

The U.S. share of Saudi rice imports declined from 60 percent in 1980 to slightly less than 50 percent in 1981, as competition from Thailand and Australia intensified. Total Saudi rice imports reached 575,000 tons in 1981, about one-third above 1980.

The largest item of the \$1.2 billion spent for cereal imports in 1981 was barley. Total barley imports reportedly exceeded 2.8 million tons valued at nearly \$500 million, compared with 1.2 million valued at \$336 million in 1980. Subsidy payments for imported barley averaged over 70 percent last year. Plans to alter the way subsidies are paid in the future could have contributed to the rise. Saudi barley imports from France and Australia were about double 1980's 567,000 and 294,000 tons, respectively. Most of the 247,000 tons of U.S. barley sent to Singapore was bagged and shipped to Saudi Arabia.

Imports of corn and sorghum combined remained near 1980's 663,000 tons. The Sudan and Thailand each supplied over 40 percent of 1981 imports. U.S. deliveries of corn to Saudi Arabia increased to about 27,000 tons.

Saudi imports of poultry meat increased 32 percent in 1981, to about 250,000 tons—up from 194,000 in 1980. France sent 93,500 tons, and Brazilian deliveries were about 56,000. Competition from subsidized EC and Brazilian shipments caused U.S. exports of poultry meat to decline from 17,000 tons in 1980 to only 5,000 in 1981. The U.S. share of this market may drop further in 1982,

although Saudi Arabia's total imports of poultry meat may rise to about 275,000 tons.

Saudi imports of beef nearly doubled in 1980, and the volume reached 64,000 tons valued \$260 million in 1981. The leading suppliers were Australia, New Zealand, India, Argentina, and the United States. Purchases of beef continued to rise in early 1982, and Saudi Arabia now ranks next to Egypt as the second largest Arab importer of beef. Imports of high-quality cuts of U.S. beef, mostly for hotels and expensive restaurants, were valued at about \$20 million in 1981.

Australia supplied most of the 32,000 tons of mutton imported by Saudi Arabia in 1981. Some Saudi firms want to begin purchasing U.S. mutton because our prices are not too much above Australia's \$2,500 a ton. In addition, government subsidies provide certain incentives for Saudi importers to buy U.S. mutton, despite slightly higher prices. A portion of the bill will be paid by the Ministry of Commerce.

Saudi Arabia's imports of canned meat exceed \$20 million annually. These imports came from a wide variety of sources, mainly Brazil, China, the United States, and Denmark. Milk imports doubled between 1977 and 1980 and rose again in 1981. Saudi imports of dry milk reached 54,290 tons valued at \$136 million in 1980. The leading suppliers were the EC, 86 percent (mostly the Netherlands and West Germany); New Zealand, 6 percent; and the United States, 2 percent. Most of the imported powdered milk is blended with local milk to prepare reconstituted milk, which modern dairies package into glass and plastic containers. Imports of milk exceed \$40 million annually, with about 80 percent from the EC and about \$1.5 million from the United States.

EC deliveries of butter and cheese soared in 1981, particularly supplies from Denmark. Saudi imports of butter increased to about 48,000 tons valued at over \$140 million. Imports of cheese from Denmark soared from 1,876 tons in 1980 to 5,400 in 1981, while purchases from France increased 9 percent to about 7,000 tons. Saudi imports of U.S. cheese exceeded 500 tons annually in the last 2 years.

The United States provided about one-third of Saudi Arabia's imports of eggs in the last 2 years. The EC, Bulgaria, and Romania supplied most of the remainder. Total imports of eggs in 1981 were about 40 percent above 1980's 17,000 tons.

Plans to build new factories for tomato paste could eventually cause a reduction in imports of canned vegetables, which were valued at about \$100 million in 1981, up from \$80 million in 1980. Major suppliers were Greece, Spain, Italy, China, and the United States.

Direct U.S. agricultural exports to Saudi Arabia were valued at \$465 million in 1981, up from \$375 million in 1980. U.S. feed grain shipments through Singapore and Canada to Saudi Arabia were valued at about \$50 million. The \$26-million increase for 1981 rice exports helped offset a reduction of \$38 million for wheat flour deliveries. Saudi Arabia has become a major market in recent years for U.S. exports of grapes, apples, peanut butter, honey, and high quality cuts of beef.

Saudi Arabia's total imports of agricultural commodities may approach \$7 billion in 1982, including about \$2 billion from the EC. U.S. agricultural exports to Saudi Arabia should continue to rise, possibly to \$600 million in 1982.

Unusually heavy rainfall this spring should enhance yields of cereals, vegetables, and alfalfa, and the 1982 wheat harvest may increase to 400,000 tons. Total Saudi

farm output might rise by 18 percent this year. Yet, the opening of new supermarkets and fast food outlets that serve a more affluent population will boost import needs. (John B. Parker)

## Syria

### Economic Growth Slows

In 1981, Syria's real GDP growth rate was estimated at 6 percent, substantially lower than the 9.7 percent indicated by official statistics for 1980. However, inflation fell below 1980's 30 percent. Nevertheless, costly development projects saw slower growth. At year's end, Syria had one of its periodic foreign exchange shortages.

The deterioration in the value of the Syrian pound was halted when, in April 1981, the Government officially established a parallel market rate that allowed the pound to fluctuate. At the same time, it imposed a series of special trading procedures for private-sector dealings. The Government agencies, however, still operate on an official rate of US\$1 equals LS 3.90. Since then, the parallel rate has oscillated from a low of LS 6.40 per US\$1 to a high of LS 5. The parallel rate applies to all private-sector dealings, remittances from Syrians working abroad, and public-sector exports, with the exception of oil, cotton, and phosphates. The main objective behind the two-tier system was to encourage private and public-sector exports, as well as tourism and the inflow of remittances.

The new system did have the desired effect, as the Syrian pound gradually rose against the dollar and other major currencies. The shift in exchange rates was matched with an announcement of restrictions on private imports, enacted to reduce consumption of unnecessary luxury goods. In addition, a July 1981 directive to public agencies requested a 10-percent reduction of budgeted expenditures for that year. Despite this, there was a shortage of foreign exchange by the end of 1981. However, 1982 began with the continued expansion of the public sector, especially in the import trade. The official word was that, rather than eliminate the private sector, a redirection of its efforts was required.

### Agriculture Excelled in 1981 But Slows in 1982

Farming, which contributes a fifth to the GDP, had a very good year in 1981, with major crops recording healthy increases over the already high levels of 1980. Favorable rains that were well spaced, abundant, and on time generated the improved output. The wheat crop, at 1.8 million tons, was nearly a record and barley at 1.4 million tons, was almost 17 percent above 1980. A guaranteed procurement price of \$194.87 a ton, 33 percent over the 1980 price, was an incentive and farmers sold a record amount to the General Establishment for Cereal Processing and Trade.

Seed cotton production, at 355,000 tons, was 9 percent above the 1980 crop. The weather was favorable, improving the yield. The area was up because of a 42-percent increase in the procurement price, with an additional bonus for cooperative members. The procurement price was again raised for 1982, reflecting the Government's renewed interest in cotton as opposed to competitive crops, such as sugar beets, whose procurement price was increased very little.

Tobacco output was well below the target of 15,600 tons at 13,500. Labor problems and high production costs are the main reasons, despite the fact that procurement prices were raised 27 percent. The output of lentils, which were hit by a frost during the flowering period, plummeted about 52 percent.

Livestock production is expected to expand more in the public sector than in the private sector because of uncertain feed supplies. In addition, the cost of feed ingredients in relation to farm prices has dampened private enthusiasm for expansion.

Syria has been purchasing dairy cows from the Dutch, and it should purchase another 2,000 to 5,000 head of bred heifers in the next several years. However, it appears that Syria will still need to import increasing quantities of milk powder, butter oil, butter, and cheese.

The Government continues to encourage sheep output. The demand for meat is high, and imports supplement the offtake from the 9.3 million head of the national flock. Because Syrian sheep are popular in the Arabian Peninsula, more than the legal numbers leave the country, increasing the gap in supply.

The production of broilers and eggs, at 44.7 million head and 1.5 billion units, is on the increase. The public sector contributed about 7 percent of the broilers and 12 percent of the eggs. Poultry has the potential of becoming the most rapidly growing agricultural sector, with possible exports by the mid-1980's. But this would require considerable investment of additional capital.

### Trade Activities Shifting to Public Agencies

Syria's agricultural imports in 1982 are projected at 1981's \$540 million. Wheat imports are expected to be down, but corn, rice, soybeans meal, vegetable oils, full-fat milk powder, butter, vegetable seeds, and shelled nuts will likely increase. Agricultural imports from the United States were \$34.6 million, about 35 percent over 1980. Corn accounted for two-thirds of this. U.S. agricultural imports from Syria increased from \$6.9 million in 1980 to about \$8.7 million in 1981, with 85 percent consisting of Turkish leaf tobacco.

The Government continues to subsidize the sale of bread, rice, sugar, and vegetable oil, and it sets prices for most other food items. In 1981, Syria enjoyed a decline in support costs because of the drop in the international prices of imported agricultural commodities. Procurement prices were increased for all crops, with bonuses for early delivery of grains. Bulk delivery was also encouraged to save the costs of bags and labor. Many more agricultural items were limited to state trading agencies—from purchasing and imports through retail sales.

The new fifth 5-year development plan (1981-1985) got off to a slow start because approval was not given by the Syrian Parliament until August 1981. In the plan investment is set at 80 percent for the public sector and 20 percent for the private sector. Priority is given to agriculture, which received the largest allocation—some 17 percent or \$4.35 billion. Investment in fertilizer, animal feeds, agricultural machinery, and food processing is also planned.

Officials indicate that a real effort will be made to shift the role of the private sector from trade and consumption to production. The public sector will continue to support the previous plan's emphasis on land reclamation, irrigation, inputs, credit, and marketing.



Agriculture got off to a mixed start in 1982, and wheat output is forecast to drop somewhat because of meager rainfall. The drop will occur in spite of an area shift from pulse crops. The Government's support in improving agriculture should keep overall production trending upward, but weather continues to play a major role. In addition, the economy is quite vulnerable to political developments throughout the Middle East. (H. Charles Treakle)

## Turkey

### Economy Recovers; Production Up Slightly

Following 2 years of economic decline and record inflation, Turkey's economy grew about 4.4 percent in 1981. Industrial production is estimated to have increased 8.6 percent, with agricultural growth at 0.2 percent. Following the implementation of the 1980 economic stabilization program, Turkey not only succeeded in boosting exports and increasing industrial output but also managed to reduce inflation from 100 percent in 1980 to one-third that level in 1981. The Government intends to reduce inflation even further in 1982, to an estimated 25 percent, implying continued tight money and credit policies.

Turkey's total exports jumped from \$2.9 billion in 1980 to a record \$4.7 billion in 1981. Agriculture's share declined from 58 percent to less than 50 percent. In the past, agriculture accounted for as much as 75 percent of total exports. In addition, the orientation of Turkey's exports shifted somewhat from its traditional markets in Europe to those of the Middle East. The boom in exports was due largely to export incentives, greater availability of imported raw materials and energy, and a more realistic exchange rate. Imports, which rose by 13 percent to a record \$8.9 billion, followed basically the same pattern as in 1980, both in composition and in country of origin. That pattern is expected to continue in the near term.

For 1982, the official estimate is \$5.6 billion for exports and \$10 billion for imports. The largest single item among imports remained petroleum. However, unlike in 1980, when the bill was \$3.5 billion and exports were \$2.9 billion, 1981 export earnings more than covered petroleum imports, which were again under \$4 billion. The significant increase in imports is being financed to a large extent by official balance-of-payments assistance from Organization of Economic Cooperation and Development (OECD) and other multilateral and bilateral financial sources, in addition to a dramatic increase in workers' remittances from abroad.

Turkey is an associate member of the EC and conducts about 50 percent of its trade with member countries. During the past year, however, there has been a significant increase in trade with Middle Eastern countries, and Turkey's major trading partners in order of importance are currently Iraq, West Germany, Iran, Libya, and the United States. Turkey is essentially food self-sufficient. However, the Government's desire to influence prices in a relatively free market resulted in the importation of seed oils and wheat to prevent speculative price rises.

### Production Mixed with Further Emphasis on Export Crops

Agriculture continues to play a crucial role in the Turkish economy, contributing one-fifth of total output, 60 percent of employment, and just under half of total exports. More recently, there has been somewhat of a shift in relative priorities in favor of agricultural output and export potential through various changes in the system of input subsidies, support prices, extended facilities for rural investment, and some reorganization of agricultural institutions.

Agricultural production was up slightly in 1981. Production of wheat and feed grains, as well as rice and pulses, increased. Despite a good wheat crop, Turkey had to import over 800,000 tons, mostly from the United States, because of over-optimistic government estimates of the 1981 crop, and because support prices were set too low. To prevent inflation, the support prices were set lower than the free market price. As a result, producers sold to the private trade, while the Government's purchasing agent (TMO) bought only 700,000, compared with a forecast 2.3 million. Most of the crop was purchased by private dealers or kept by farmers who were waiting for higher prices in the winter. In order to salvage some wheat, the Government raised the support price in September, but it still only managed to purchase another 300,000 tons.

As a result, Turkey bought nearly half a million tons of wheat from the United States in September and another 300,000 in the spring of 1982. An additional 80,000 tons came from Bulgaria. This was the first major purchase since the mid-1970's, but probably not the last, because Turkey may import again in 1982/83. In spite of these imports, Turkey continued to export some wheat to neighboring countries, such as Iran, Iraq, and Cyprus. In addition, there are possibilities of some area shift from wheat to barley, because barley grows well in Turkey and is a good foreign exchange earner. Barley production was a record 5.5 million tons in 1981, with exports of 300,000.

Cotton production in 1981 is estimated at 487,449 tons, down slightly from the previous year. Output in 1982 is expected to decline somewhat because heavy rains until the end of May necessitated replanting and delayed sowing in the Aegean region. Domestic demand for cotton textiles is not expected to show any appreciable change. Average income groups with limited disposable income will continue to spend sparingly as prices for essential food items began to increase in 1982. This should lead textile manufacturers to seek additional markets abroad.

Pulse production increased sharply in 1981, as attractive prices in both the local and foreign markets encouraged farmers to expand acreage. Production of lentils, chick peas, and dry beans reached 730,000 tons, of which 431,400 were exported, far above expectations. The value of all pulse exports amounted to about \$216 million, making them the fifth most important agricultural export.

Oilseed production numbers are subject to variations. The major disagreement is over the production level of sunflowerseed, which is Turkey's major source of edible oil. Total oilseed production is estimated at 1.6 million tons, 5 percent below 1980. The lower sunflowerseed

acreage and degenerated seeds account for most of the decline. The Government, seeking self-sufficiency in edible oils, is giving special attention to the cultivation of soybeans as a secondary crop. Rapeseed production is also encouraged, but neither program has been very successful. Marketing problems for both crops discouraged farmers from planting the oilseeds. Therefore, Turkey is expected to continue to be a vegetable oil importer for some years.

Reliable statistics on domestic consumption and stocks of fats and oils are not available. Therefore, any accurate projections on imports are difficult. However, imports in 1980/81 reached 150,000 tons, most from European sources. Imports in 1982/83 will be at least 100,000 tons.

In the past 2 years, Turkey has had to import large amounts of sugar because domestic output failed to meet demand. Nevertheless, last year was a banner year for sugar production. Increases in beet prices, as well as the announcement of the price before planting time, encouraged farmers to expand acreage. In addition, more inputs, such as fertilizer, fuel, water, and insecticides, were used to get maximum yields. Sugar production is estimated at 1.4 million tons, 50 percent above 1981, meeting domestic needs with export possibilities.

The Turkish livestock industry continues to expand. In particular, relatively high prices continued to promote investment in dairy farming. In addition, the Government has encouraged dairy farmers to increase output and to produce higher yields per animal though importation and breeding, as well as better feeding, housing, and managerial practices.

Considerable increases in the price of red meat reduced demand and, consequently, the number of animals slaughtered. Exports of livestock and products were up significantly, and foreign exchange earnings from this sector, including poultry and dairy, totaled \$230 million, fourth in importance.

The poultry industry continued to expand, with meat output in 1981 at 83,000 tons. The most significant increase was in broiler output. Poultry meat prices increased about 20 percent over the previous year, while red meat prices rose 40 to 50 percent. This was due mainly to the faster development of the broiler industry as compared with red meat enterprises. In 1981, Turkey imported about 500,000 parent-stock chicks, mostly from the United States, the Netherlands, France, Belgium, Luxembourg, the United Kingdom, and Canada. Even though these purchases declined from the previous year, exports of live birds and poultry products increased considerably as Turkey started exporting parent-stock chicks, hatching eggs and poultry meat.

### **Agricultural Exports Sharply Higher**

Provisional data for 1981 show a healthy development in Turkey's trade performance. Exports rose by 61 percent to a record \$4.7 billion. While agricultural exports increased, industrial shipments scored a gain of 119 percent. Industrial exports for the first time replaced agricultural-based shipments as the greatest source of export revenue. The boom in exports was due largely to incentives, greater availability of imported raw materials and energy, and a more realistic exchange rate.

Agricultural exports registered \$2.2 billion last year, 33 percent above 1980. Tobacco increased by 69 percent in value to a record \$395 million. Nearly 131,000 tons were exported, with the United States absorbing over 52

percent of the total. The second largest buyer was West Germany, taking 13.6 percent. The increases resulted from more sales by the Turkish Tobacco Monopoly and from the negotiations between the monopoly and foreign buyers concerning discount sales concluded in 1981. While 1982 sales are not expected to be as high, traders project that, with the possibility of 10,000 tons being exported to the People's Republic of China, total sales will not be less than 110,000 tons.

Filbert exports, at a record \$395 million in 1981, increased 4 percent in quantity but declined almost 24 percent in value, to \$302 million, because of a drop in the world price. This pushed filberts from first to third place as the principal agricultural export. The very high price reached in 1980—\$400 per hundred kilograms—forced some chocolate manufacturers to use almonds or other nuts as substitutes. Cotton exports, which for years had ranked first, came in second. Nevertheless, cotton increased 8 percent in value to \$348 million.

Agricultural imports totaled over \$350 million, about the same as in 1980. The principal imports were soybean oil (\$77 million), sugar (\$52 million), wheat (\$47 million), and merino wool (\$40 million). In 1980, sugar imports totaled \$13 million, and soybean oil equaled \$67 million; there were no wheat imports. U.S. agricultural exports to Turkey totaled \$128 million, of which wheat accounted for 56 percent. The other large item was tallow.

In 1981, the Government continued its economic stabilization program. Concurrently, a very tight money and credit policy was applied to curb domestic demand and stabilize inflation, while exports and export-oriented industries were encouraged. The virtual termination of state subsidies and the freeing of prices of manufactured goods produced by the State Economic Enterprises resulted in sharp price rises for almost all items, causing declines in domestic demand. At the same time, high interest rates, as high as 50 percent per annum on time deposits, induced greater savings and reduced demand.

Support prices for agricultural commodities were increased only moderately, while prices of petroleum products and fertilizers, as well as other basic goods and services produced by the State Economic Enterprises, were boosted substantially.

Fertilizer prices rose an average 54 percent, and diesel oil prices climbed 39 percent. At the same time, minimum wages for farm workers were increased nearly 80 percent. In spite of these increases, the support prices for all commodities other than grains were raised only 23 to 33 percent. To reduce tobacco production, the Government gave the lowest price increase for this crop. Therefore, production declined 20 percent. Nevertheless, prices paid by private companies increased farmers' average returns and lessened producer grievances. Cotton prices, which were increased only 26 percent, created the biggest criticism.

Grain prices were raised 49 to 60 percent in order to encourage delivery to TMO. But, free market prices fluctuated above the support level, and TMO was caught short and had to import wheat.

On the other side, the Government increased the income tax exemptions to small farmers, and the credits extended to farmers were subject to the lowest interest rates.

The 1982 wheat harvest is estimated at 13.3 million tons—an excellent harvest. Wheat trade is almost impossible to determine, although Turkey has some commitments to export. Domestic prices for wheat are set



just before harvest, and TMO purchases will determine if the country will import more during the rest of 1982.

Turkish trade figures, particularly for exports, constitute statistical evidence that the economy is responding to the export-oriented economic reform program. However, this is a long-term program, and 1982 will be a key year in determining whether these dramatic developments are temporary or long lasting. The Government has projected 1982 exports at \$5.6 billion, and imports at \$10 billion. The figures appear optimistic but not overly ambitious. Recently, Turkey has signed trade agreements with various Muslim countries.

In 1981, the United States was the major supplier of wheat, tallow, seeds, and semen. But, very little of the vegetable oil and none of the dairy animals came from the United States because of serious competition from other suppliers. In addition, U.S. cattle prices were almost 100 percent above those of European or Israeli prices of similar grade animals because of relatively higher farm prices and transport costs. Furthermore, a 5-year agreement for rice imports from Pakistan excludes the United States from that market. The United States supplies some hides and skins but no wool because of competition from other markets. However, this country did supply a major portion of Turkey's seed imports, particularly soybeans and watermelon seeds. Turkey is seeking sunflowerseeds, and some may come from this country if U.S. prices are competitive. (Michael E. Kurtzig)

## **United Arab Emirates**

### **GNP Rises, and Subsidies Encourage Agricultural Expansion**

The United Arab Emirates' (UAE) GNP increased about 10 percent to nearly \$30 billion, but a 7-percent inflation rate left real growth at only 3 percent. Petroleum exports remained steady at \$21 billion, and imports increased about 15 percent to nearly \$10 billion. Per capita income, at \$22,000, was about the same as in 1981. The heavy concentration of wealth in about 200 families means that the purchasing power for the average resident is far below what the per capita income indicates. The modern port at Dubai has recently been used to unload some cargo for Iraq, and business with Iran has dwindled. Foreign investment flowing into Abu Dhabi and Dubai exceeded \$1 billion in 1981.

### **Unusual Rainfall Benefits Crop Yields**

Rainfall in the first 3 months of 1982 was about five times the normal level. Heavy rains in the Harrar Mountains will enhance irrigation plans for Ras-al-Khaimah, as well as boosting growing sales of bottled drinking water to the local market and to Saudi Arabia.

Subsidies have encouraged an expansion in agriculture, particularly for vegetables and poultry. Vegetable production increased about 10 percent to nearly 250,000 tons in 1981, double the 1976 volume. Tomato production surpassed 60,000 tons. Supplies were so large in April 1981 that prices fell to 26 cents per kilogram, and some tomatoes were exported. The production of melons, cucumbers, and squash has expanded considerably. Date orchards in Ras-al-Khaimah and Al Ain are now very productive. Date production surpassed 45,000 tons, and

the orange output was about 12,000 tons, mostly from orchards in Fujarah.

The output of poultry meat increased to about 14,000 tons, but imports rose to 38,000. Nearly half of the eggs are now produced locally. Production of alfalfa soared 26 percent to about 50,000 tons. More farmers are using subsidized seed and fertilizer to grow alfalfa for their cattle, sheep, goats, and camels. Livestock numbers continue to rise. Most of the traditional sheep and goat flocks range from 15 to 40 head. Improved slaughter facilities and refrigeration have spurred interest in livestock farming.

Government subsidies for construction of livestock buildings and greenhouses for vegetables have encouraged investments in agribusiness. Subsidies pay all the costs of seeds and over 50 percent of the expenses for fertilizer and animal feed. The experiment station at Diggada has developed inexpensive greenhouses and has tested the most popular American varieties of tomatoes, cucumbers, and winter vegetables. Many farmers have visited Diggada, and a considerable number near Ras-al-Khaimah and Al Ain now grow vegetables under greenhouses.

### **Lower Transshipments to Iran Reduce Imports**

The UAE imports over 90 percent of its food, and most of the local output of meat, milk, and eggs is based on imported feed. Programs to expand the area under irrigation are inhibited by the fear that underground water resources may be depleted and concern that the small size of the local market could mean a sharp drop in prices if the production potential for some crops is realized.

Dubai still accounts for over half of the UAE's agricultural imports, although Abu Dhabi and Sharjah have become more important in recent years. Private firms dominate the food import trade. The importers often have investments in food wholesaling and retailing, and some even own grocery store chains. Investments in local facilities that process milk, cooking oil, and fruit juices with the use of imported ingredients have increased recently.

Last year agricultural imports were slightly below the 1980 peak of \$1.4 billion because of the dramatic reduction in business with Iran. Total rice imports reached 350,000 tons in 1980, when 200,000 tons apparently moved to Iran. Less than one-tenth that volume was transshipped to Iran 1981. Imports of rice declined from over 400,000 tons in 1980 to about half that in 1981. Thailand and U.S. shipments combined fell from 272,000 tons to only 67,000. Basmati rice from Pakistan is a favorite of UAE consumers, and Pakistan's shipments declined only 8 percent to 56,000 tons.

Australian deliveries of wheat increased to 120,000 tons in 1981, but they were far below the 261,000 shipped in 1977, when stocks were built up for new flour mills. U.S. exports of wheat flour declined to 3,000 tons.

Total U.S. agricultural exports declined from a peak of \$114 million in 1980 to only \$59 million in 1981, mostly because of the drop in rice sales to Iran. The shipments of a number of items consumed locally increased. Total UAE imports of cheese reached 10,000 tons, with larger arrivals from the EC and Australia. U.S. exports of eggs nearly doubled last year's level, reaching \$7.6 million. Shipments of apples, pears, and oranges remained strong,

following astonishing gains in 1980. Our exports of apples rose 4 percent to 10,465 tons, as the UAE's total imports reached 30,000 tons. Sales of some U.S. processed foods advanced, particularly coffee, 129 percent; fruit juices, 72 percent; soups, 245 percent; and honey, 38 percent.

Agribusiness investment contributed to larger sales of U.S. seeds, which reached \$1.1 million, triple the 1980 level. A new market for U.S. barley opened with the delivery of 4,663 tons valued at \$828,000.

The local output of livestock products and vegetables should increase more than 10 percent in 1982. The combination of exceptional rainfall and rising interest in agribusiness investments should contribute to the increase.

Despite a strong growth in agricultural production, further gains in the diet will cause food imports to rise. Imports of dairy products, beef, pulses, sugar, and processed foods are expected to increase. U.S. agricultural exports to the UAE may climb in 1982, mostly because of the sale of 67,000 tons of rice, triple 1980 shipments. Demand for U.S. apples, pears, and eggs is also rising. (John B. Parker)

## **Yemen Arab Republic**

### **Agricultural Labor Shortage Slows Growth**

Yemen's per capita GDP of \$219 (at 1975/76 prices) is among the lowest in the world. However, after a poor start last year, economic conditions improved, and Central Bank of Yemen reported a balance-of-payments deficit of only \$150 million, about 60 percent lower than their earlier projection. GDP grew about 5 percent.

In 1981, fewer Yemenis were working abroad, and remittances were almost 15 percent lower than in 1980. However, an estimated 1 million workers—about 50 percent of the labor force—were still working outside the country. By 1981, their remittances had leveled off to just under \$1 billion. The considerable flow of income that had sparked construction activity since the early 1970's has induced large increases in consumption and expanded imports. Importing has been aided by the full convertibility of the Yemeni rial and an absence of import restrictions. Although export earnings increased from \$7.1 million in 1980 to \$18.2 million in 1981, they were still less than 2 percent of the \$1.1 billion in imports. In 1981, there was a significant decline of the country's foreign exchange holdings.

The large inflow of earnings from abroad, which have averaged from 35 to 40 percent of the value of all goods and services, has not been without cost. Sending workers abroad has greatly reduced the available labor supply, making manpower one of the overriding constraints to all domestic economic activity. This has particularly disadvantaged agriculture, which accounts for about 30 percent of the GDP and 65 to 70 percent of the economically active labor force.

In the aggregate, 1981 agricultural production was marginally up from 1980. According to the Ministry of Agriculture and Fisheries, cereal and pulse production was only slightly above the previous year. Wheat output rose from 65,000 to 70,000 tons, while barley climbed from 48,000 to 54,000. The output of millet and sorghum at 111,000 and 525,000 tons, respectively, was slightly below the previous year. The real gain in 1981 farm out-

put was in vegetables, potatoes, and fruit, which were up 13, 11, and 8 percent, respectively. The increase in vegetable output, from 261,000 tons to 296,000, continues a trend that started in the early 1970's. Historically, some 90 percent of the area in crops was planted to cereals, but it is estimated that this has dropped to 80 percent and is still declining.

During the past decade, the lucrative attraction of off-farm employment has caused the opportunity cost of farming to increase considerably. In many cases, the farm operator's work is no longer primarily farming, and this has resulted in changes in patterns, methods, and practices. Usually, when a farmer has found other employment in an urban community or overseas, the operator's family remains on the farm but changes the cropping patterns toward cash crops.

At the same time, there has also been a shift in cropping patterns for those remaining farmers. Where farms have dependable irrigation supplies, such as wells, many have switched to vegetables as a main crop. These farmers usually continue to grow grain, but only for home use, and they rely on vegetables as a source of cash income. The area in fresh vegetables has almost tripled in the last decade, but this rapid advance is not been without problems. Market prices fluctuate widely, plummeting during the peak seasons, because there are no suitable storage facilities. Grading is haphazard, and there is no system of standards.

Twenty years ago, coffee was the primary export, but it began to decline during the civil war and the lengthy drought that followed. In the 1960's, production sometimes exceeded 12,000 tons, and in 1969 accounted for 53 percent of the value of all exports. By 1976, output was down to 3,400 tons and has remained near this level, since coffee has been in competition with "qat" (*Catha edulis*), a mildly narcotic shrub. Unfortunately for coffee, qat grows best in the same altitude and soils. Nevertheless, coffee is expected to improve its position as a commercial crop, because new plantations were started in the Taiz and Ibb areas in 1980.

### **Food Imports Rise Despite Self-Sufficiency Goal**

With rising per capita income, the supply and demand gap for meat and other livestock products is rapidly widening. This problem was addressed in the first 5-year plan (1977-81), which included four specific livestock improvement projects and two integrated rural development projects. The second 5-year plan (1982-87) continues prior strategy, and it adds improved range management and expands all projects for better animal nutrition, health, breeding, and overall management. Livestock accounts for about 20 percent of agricultural output, and planners suggest that, in the long term, the potential for increased livestock growth is greater than that for crops.

In recent years a widening trade gap has developed with the country's dependence on imported food. Imports now account for up to 40 percent of total food consumption and 65 percent of food grain use. In 1973, wheat imports were 136,000 tons. They rose to 459,000 tons in 1978, where they appear to have leveled off. Exports are small, and agricultural shipments account for well over 90 percent of the total. Yemen's main farm exports are cottonseed, coffee, and hides and skins which have been decreasing in value. In Yemen's FY 1980, there was a negative trade balance of \$1.7 billion.



In 1980, the United States provided about 4 percent of Yemen's total imports, about 10 percent of which were agricultural. In 1981, U.S. farm sales doubled, mostly because of large rice shipments. For the past 5 years Yemen imported about 30,000 tons of rice annually from this country, because consumer tastes appear to favor U.S. rice. The Ministry of Supply and Trade estimates rice imports in 1982 at 35,000 tons. About 10,000 tons have been purchased so far, all from U.S. sources. In addition to food imports, there is a demand for agricultural equipment, water pumps, animal feed and food-related products, such as equipment for poultry and dairy farms.

Agriculture remains the most important sector of the economy, and despite a number of irrigation projects and considerable assistance from international donors, production appears to have increased slowly. Transport and industry have shown much more rapid growth.

The second 5-year plan will continue and expand the goals of the first 5-year plan. The first plan was aimed mainly at achieving food self-sufficiency, increasing raw materials for existing and new agro-industries, reducing of the widening trade deficit in agricultural commodities, providing price support to small farmers, creating more equitable and stable land tenure relationships, and reducing qat production. While public investments fell short of planned targets, with agricultural projects suffering the most, private investments exceeded their targets, especially in the construction sector.

Yemen is a semi-arid country, where expansion of the agricultural area depends on irrigation. Because much of agriculture depends on rainfall, 1982 output forecasts are dubious. If the weather remains favorable, output should be at the 1981 level. (H. Charles Treakle)

## **Four Small Nations on the Arabian Peninsula**

### **Economies Continue To Expand**

The four countries included in this section are each noted for certain economic roles that provide them with good prospects for future income and potential agricultural trade with the United States. Qatar has large reserves of natural gas, reportedly exceeding those of the United States. Bahrain has become a major banking and transportation center for the Mideast. Oman has petroleum wealth and a significant potential for expanding its output of fish and farm products. The People's Democratic Republic of Yemen (PDR), which has for decades been a way station for ships passing through the Suez Canal, recently discovered petroleum.

Agriculture accounts for less than 10 percent of the GNP in these countries. Qatar has the biggest GNP, with petroleum exports valued at \$6 billion in 1981. Its total imports were about \$1.3 billion. Bahrain's exports increased 17 percent in 1981, to \$4.2 billion, but imports were \$4.5 billion. Oman's total exports increased 13 percent to \$3.8 billion, while imports rose 32 percent to \$2 billion. Imports into PDR Yemen climbed sharply to nearly \$300 million in 1981, while exports (mostly sales of refined petroleum to ships passing through) remained in the vicinity of \$100 million.

### **Agricultural Output Up; Imports Rising Steadily**

A meteorological anomaly occurred in March and April of 1982, when the heaviest rainfall in decades occurred Oman, Qatar, and PDR Yemen. Floods occurred in some locations, including the streets of Abu Dhabi and Aden. These rains enhanced the water supplies for urban consumption and for irrigation.

Among the four countries, Oman is the leading producer of agricultural products, followed by PDR Yemen and Qatar. Bahrain has a small area used for vegetable gardens, and farming accounts for less than 2 percent of its GNP.

The alfalfa output in Oman now exceeds 125,000 tons annually. New irrigation facilities have bolstered the output of not only alfalfa, but fruit and vegetables. Production of vegetables—mostly melons, tomatoes, and cucumber—increased to about 150,000 tons in 1981. The output of fruit approached 200,000 tons. Bananas accounted for about half, dates for one-fourth, and limes for one-fifth.

Subsidies in Qatar are greater than those in Oman, but they encourage farmers in both countries to buy more fruit trees and develop modern irrigation facilities. Qatar provides fertilizer and improved seed.

Qatar's agricultural production increased about 10 percent in 1981, following 4 years of similar gains. In 1981, Qatar produced over 30,000 tons of alfalfa, sorghum, and dates. Vegetable output increased to about 140,000 tons, including over 30,000 tons each of melons and tomatoes. Qatar has a slight surplus of vegetables in the spring, and some exports to Kuwait and Bahrain are made each year. Vegetables are imported in the summer, when the hot weather inhibits local production.

Irrigation projects in PDR Yemen have contributed to a greater output of cereals, cotton, and vegetables. Yields in the Abyan irrigation project northeast of Aden are relatively high. Irrigation water is now abundant because of the heavy rainfall.

All four countries are increasing their imports of farm products. Striking improvements in the average diet, as well as population growth, have contributed to 8- to 10-percent increases in the demand for food in Qatar and Bahrain over the last several years. Demand growth in Oman and PDR Yemen has been about half that pace.

Agricultural imports by Qatar and Bahrain each exceeded \$200 million in 1981—double the 1979 value. The EC, Brazil, Australia, India, and Pakistan have been the principal suppliers.

U.S. agricultural exports to Qatar declined 2 percent in 1981, to \$5.3 million. However, our exports of eggs soared from \$110,000 in 1980 to \$1.7 million in 1981. This partly offset the 93-percent slide in U.S. rice exports. Pakistan dominated rice imports, but our exports of poultry meat, vegetable oils, and almonds increased.

U.S. agricultural exports to Bahrain increased 29 percent to \$9.7 million in 1981. Larger sales of processed food and feed were the reason for the increase. Pakistan also dominated rice imports to Bahrain and Australia provided most of the 40,000 tons of wheat.

U.S. exports of whole chickens to Bahrain increased 55 percent to 215 tons valued at \$456,000. Our total

exports of poultry meat to this market reached \$1 million. Our exports of nuts rose 29 percent to \$835,000, and shipments of fruit juices increased 87 percent to \$702,000. The major U.S. farm export to Bahrain in 1981 was 3,800 tons of poultry feed valued at \$1.3 million.

Oman's purchases of U.S. farm products increased 62 percent to \$7.2 million in 1981. Total agricultural imports increased about 30 percent to \$150 million, and the U.S. share rose to 4.8 percent. Our exports of wheat remained at about 5,000 tons valued at \$1 million, and corn exports were also stable at 5,900 tons valued at \$1 million.

Some of the striking gains in U.S. agricultural exports to Oman were: vegetable preparations, up 249 percent to \$654,000; nuts, up 57 percent to \$355,000; fruit juices, up 98 percent to \$487,000; and beverage bases, up 64 percent to \$905,000.

U.S. agricultural exports to PDR Yemen increased 47 percent to \$1.3 million in 1981, despite a 24-percent decline in the value of rice. Tobacco sales increased 122

percent to \$430,000, and new sales of liquid flavorings for a soft drink factory were valued at \$132,000. Aden has one of the few cigarette factories located in the Arabian Peninsula.

Subsidies are provided for farmers in all four countries, with the greatest available in Qatar. Bahrain has a small crop area and, consequently, low subsidy payments. Oman is spending more for farm subsidies and agricultural development each year, and PDR Yemen is putting more money into irrigation.

Qatar is expected to use desalinized water for the expansion of irrigation projects. Generous subsidies have contributed to the extensive planting of new date trees near Doha. Qatar has also developed modern dairy and poultry farms because of the wide array of subsidies available.

Agribusiness ventures are welcome in Qatar and Bahrain. In addition, Eastern Europeans are designing projects to boost food output in PDR Yemen. Private firms dominate the food imports of Qatar, Bahrain, and Oman. (John B. Parker)

## NORTH AFRICA

### Algeria

#### Country Seeks a More Productive Economy

In 1981, real GDP at 1974 prices increased by 4 percent, and the nominal GDP was an estimated \$42 billion, almost \$2,300 per capita. Inflation was again 10 to 12 percent. Algeria moved ahead with broad health, education, housing, and agricultural programs, which have been receiving more emphasis during the current 1980-84 plan than in any of the previous plans.

The Algerian economy is undergoing a major overhaul. The form will remain basically socialist, but not in an inflexible doctrinaire sense. The large state monopolies are being divided into smaller, more manageable companies. At the end of 1981, the FLN, Algeria's only political party, legalized the position of the private sector, which includes most retail businesses and service firms, in addition to several thousand private industrial firms, mainly in textiles and construction. This in effect guarantees private investment in acceptable forms and provides incentives for well-to-do Algerians to invest funds productively. Industrial output improved in 1981, in response to wage increases, an introduction of production bonuses, and better use of existing capacity. Wage increases of 12 to 15 percent in government agencies, state enterprises, and agriculture stimulated consumer demand.

Natural gas exports declined in 1981 because, for the most part, price disputes remained unresolved. Crude oil exports also fell as Algeria continued to demand a premium price in a buyer's market. However, increased revenues from the production and export of refined petroleum products and condensate (oil extracted from natural gas) may have offset the losses.

Algeria has moved away from concentration on heavy industry and toward a more efficient and diversified economy. However, inadequate housing, large-scale unemployment (especially among the youth), bureaucratic inefficiency, low productivity in industry and agricul-

ture, inflation, and consumer shortages remain serious problems.

#### Production Increase May Indicate Upward Trend

Cereal production was up slightly in 1981, despite lower rainfall. Increased yields of bread wheat from the socialist sector may have been the result of the new policy of decentralization, which allows more on-farm decisionmaking. Yields of hard wheat and barley on the other hand, still average only 600 to 800 kilograms per hectare (13 to 15 bushels per acre), because the small farmers who produce 60 percent of these two crops still use traditional methods and little or no fertilizer. For the first time, the Government has begun to include these private farmers in its extension and credit programs. This is expected to increase the current low yields of hard wheat and barley, and raise Algerian cereal production to its potential.

Vegetable output—mainly potatoes, watermelons, tomatoes, onions, and artichokes—continued their upward trends of recent years, stemming from more land planted in these crops. Greenhouses have increased, as has irrigated vegetable production.

Drought in western Algeria in the winter and spring of 1981/82 caused the failure of the wheat and barley crops in that area, but as a result of late season rains in the rest of Algeria, the Government is now estimating a harvest of 2 million tons, down only slightly from 1981's 2.2 million.

#### U.S. Agricultural Exports Up; Petroleum Imports Down

Algeria's total exports in 1981 were estimated at \$13 billion, up from \$10.5 billion in 1980. The strength of the U.S. dollar in 1981 helped offset the reduction in revenues from sales of oil and natural gas, because Algeria is paid in U.S. dollars for its hydrocarbon exports



but spends these dollars in the EC countries, Eastern Europe, and Japan. The value of Algeria's agricultural exports, which are estimated between \$100 and \$150 million, continued to decline.

Imports were about \$11 billion, of which agricultural products accounted for roughly 27 percent. The major item was almost 2 million tons of wheat. Other commodities were corn, coffee, tea, spices, sugar, milk and dairy products, eggs, vegetable oil, meats and live animals, pulses, oilseeds, cotton, and tobacco.

U.S. agricultural exports to Algeria were valued at \$291 million in 1981. Large increases in shipments of wheat, corn, and sunflower oil raised the total 66 percent above 1980. On the other hand, U.S. imports from Algeria declined from \$6.6 billion in 1980 to \$5 billion last year. The United States still ranks as Algeria's second or third largest trading partner, following the EC. The EC supplies nearly 30 percent of Algeria's agricultural imports, and in March 1982, the European Commission proposed a 3-year agreement providing credit on sales of wheat, barley, and other commodities to North Africa. Canada has increased its share of the Algerian market and recently signed a multiyear agreement to provide wheat, rapeseed oil, and milk.

### **Continued High Imports Despite Increased Production**

The theme of the Third Congress of the National Union of Algerian Peasants in January 1982 was "self-sufficiency—the basic goal of the revolution." In pursuit of this goal, the Government has allowed the private sector to play a greater role. The hundreds of thousands of farmers and herders who hold about 4 million of Algeria's 7.5 million hectares of agricultural land now are eligible to receive credit for financing inputs. They also will have greater freedom in marketing their production. But, this does not mean abandonment of socialism. Efforts are continuing to make the socialist sector more productive. In 1981, the Government spent 1.5 billion dinars (\$375 million) to pay the 1978/79 deficits of the state farms and cooperatives. The 2,000 state farms are being divided into several thousand smaller units. Many of these will specialize in a single crop and will be highly mechanized. Furthermore, each unit will have a technical manager responsible for field operations and crop production, and an accountant to handle the finances. All unauthorized tenants of the farm will be evicted.

In the cooperative (agrarian revolution) sector, a total of 1.5 million hectares have been redistributed to nearly 100,000 recipients. By the end of 1981, 132 farm villages had been built, and an additional 224 were under construction. Nine-tenths of Algerian communes had multiservice supply and marketing cooperatives (CAPCS).

The 1980-84 plan projects a 37-percent increase in agricultural production by 1984. Despite this, agricultural imports are expected to supply 22 percent of Algeria's consumption, a decline of only 4 percent from 1980. Algeria will likely become self-sufficient in barley, pulses, potatoes, tomato concentrate, and eggs by 1984. Imports of varying amounts of all these commodities were required in 1980. Imports of feedstuffs are expected to increase by 67 percent, a result of the large increases planned for milk and meat production. (Herbert H. Steiner)

## **Egypt**

### **Production Slows; Imports Rise**

Egypt's standard of living rose considerably in 1981. Subsidies allowed Egyptians to further improve their diet, and a building boom helped raise prospects that the serious housing shortage will soon ease. Real per capita income increased about 5 percent, and real GNP rose 9 percent. The GNP in 1981 was estimated at about \$30 billion. Lower world wheat, corn, and vegetable oil prices kept the cost of food subsidies in the vicinity of \$2 billion in 1981.

Total imports increased about 20 percent to \$11 billion. Foreign exchange earnings continued to rise, including \$3 billion from petroleum and oil product exports, \$1 billion from exports of other items (mostly cotton and textiles), \$3 billion from remittances, another \$1 billion from Suez Canal tolls, and about \$800 million from tourism. Egypt received about \$2 billion in economic aid from the United States, and another \$1 billion mostly from the World Bank and the EC.

Greater output of petroleum in the Sinai and the Gulf of Suez will offset lower world oil prices. Petroleum exports have had a favorable impact on Egypt's foreign exchange and contributed to a more buoyant economic outlook.

### **Agricultural Production Stagnant**

Overall agricultural production increased about 1 percent in 1981, down from a 3.6-percent rise in 1980. Gains in the output of livestock products accounted for most of the growth. Red meat production increased 4 percent to about 493,000 tons. The output of poultry meat from intensive operations accounted for much of the increase and these operations now provide over one-third of domestic output. Live chickens sell for about 30 percent more than imported frozen poultry. Beef output also increased to nearly 300,000 tons. This did not satisfy demand, and imports expanded considerably.

Total grain production remained at about 7.3 million tons in 1981. The area in rice declined 4 percent, and production fell by 6 percent. Problems concerning the availability of irrigation water and opportunities to switch rice allotments to other crops contributed to the decline. Government gifts of \$27 worth of free inputs to participants helped spur wheat yields in 1981 and again in 1982. Wheat output increased slightly to 1.94 million tons in 1981 and remained near that level this year, despite a considerable decline in area. The area planted to wheat in the heart of the Nile Delta is declining, but more new land on the edge of the old area is now devoted to wheat. This means that wheat cultivation is shifting from the most fertile soil, and that average yields may decline. Further relaxation of rotation requirements could cause wheat cultivation to cease in some areas.

Corn yields are still far below their potential. Green corn stems are a major fodder item in the summer, and stripping the stalks reduces yields. Farmers participating in projects to improve yields agreed not to strip the stalk during the growing season, and those who abstained received very high yields. However, the acreage involved in the project was less than 5 percent of the total corn area, which remained at 2 million acres. A larger share of the crop went into animal feed, because

human consumption of corn bread fell as the distribution of subsidized balady bread spread to the countryside.

Greater use of new varieties of cotton with a shorter growing season allowed a new region of onions interplanted with cotton to evolve. Total onion output increased 17 percent in 1981, to 654,000 tons. However, a serious shortage in March 1982, caused by a poor harvest in Upper Egypt, led to the lifting of price ceilings on onions.

Overall vegetable production increased about 3 percent in 1981, to about 9.4 million tons. Tomato output remained at about 2.45 million tons because of a slight decline in planted area and disease problems.

Production of oranges fell from a peak of 1.05 million tons in 1979 to less than 900,000 in 1981. Bad weather hurt yields. Grape output remained steady at 298,000 tons in 1981, but dates fell 11 percent.

Programs to expand sugarcane output have not been successful. Competition for scarce cropland is too great. New plantings of sugar beets in the salty soils of the northern Delta are designed to hold down some of the growth in sugar imports. However, low world prices for sugar may prevent Egypt from implementing plans to greatly expand output.

Feedlots are expanding, particularly near Alexandria. Over 30,000 head of cattle were imported from Ireland and Austria last year. Some are being used to expand dairies, but large numbers went to new desert projects, where green barley straw and forage crops are used to feed beef cattle. Milk output increased about 3 percent to 1.93 million tons in 1981. A larger share of the milk consumed in urban areas is now handled by modern techniques.

### **Agricultural Policy Changes Underway**

Low farm prices attracted considerable attention in early 1982. The Ministry of Agriculture advocated further hikes in farm prices, following moderate increases in 1981. Pressure for higher farm prices was accelerated for a number of reasons. The national budget reveals that low farm prices and a monopoly setting provide the Ministry of Economy and public companies with a saving of about \$1 billion. In contrast, subsidies for feed, seed, fertilizer, and pesticides cost the Government about \$200 million annually. The extraction of about \$800 million from the farm sector for the benefit of the urban population is now under serious review.

Farm prices were increased in the last several years, up from the very low levels that prevailed for about 15 years. Yet, the gains in real terms were small. Farm prices for cotton are less than half the world market price, and farmers virtually donate their cottonseed to the Government agency that has a monopoly for cotton marketing. Farmers are required to sell at least 1.5 tons of rice from each feddan (1.04 acres) harvested, and the procurement price for rice is only about one-third the world market price. On the other hand, Egyptian farmers fare better with prices for wheat, corn, and potatoes. The average producer price for wheat in 1981 was about 85 percent of that received by U.S. farmers, and the average producer price for corn was 15 percent above that in the United States.

The Ministry of Supply's efforts to greatly expand distribution of bread and other subsidized foods in rural areas created some unexpected results. In particular, bread consumption climbed in Upper Egypt. In the past, most of the domestic wheat supply had not been avail-

able for purchases from the Ministry of Supply. Villagers were proud of the traditional way local wheat was used to make bread at home. Following the dramatic changes in government policy for balady bread in early 1980, more people became interested in this subsidized high-quality white bread. For a while, low-quality (92 percent extraction rate) bread was sold for one-half a piaster (1 piaster=1 U.S. cent) per loaf of 135 grams. Later on, the high-quality balady bread was offered for 1 piaster per loaf of 169 grams, which has become a great success throughout the country. Thus, farmers found it to their advantage to sell wheat to the Government at \$85 a ton and to buy the subsidized bread. Moreover, last summer, more rural consumers were switching to the new balady bread at the same time that an unexpected increase in local wheat production occurred. Gains in some areas where projects provided free seed and fertilizer were substantial. In the past, domestic procurement by the Ministry of Supply was seldom over 10 percent of the crop. In 1981, the share of the crop purchased by the Ministry of Supply was about 50 percent higher than during 1979/80.

Despite some gains in the output of selected crops, Egypt is becoming more dependent on imported food. About 78 percent of the wheat and flour consumed in 1981 was imported. Imports also provided over 70 percent of the cooking oil and nearly half of the sugar. All of the tobacco and tea used in Egypt is imported. The trade balance in fruit and vegetables has shifted from a surplus to a deficit. Egypt's imports of apples, bananas, dry beans, and lentils recently soared, while exports of oranges and onions remained far below peak levels attained in the early 1970's. Therefore, imports of apples and bananas are temporarily banned. The exports of 20 crops are monopolies of government companies managed by the Ministry of Economy. Exports of rice, oranges, and onions—managed by public companies—have dwindled because deliveries by farmers have declined.

### **Agricultural Import Pace Slows**

Egypt's agricultural imports increased more than 20 percent in 1981 to approximately \$4 billion. Imports of most farm commodities rose, especially meat, dry beans, lentils, and fresh fruit, indicating a steady improvement in diet. Food imports have become more diversified as foreign exchange has become more accessible. More constraint on imports of semiluxury items has been exercised in 1982, but larger imports of basic foods are underway.

Wheat and flour imports increased from 5.4 million tons in 1980 to 5.9 million in 1981, and arrivals from the United States rose moderately to 2.5 million. Cash purchases of U.S. wheat soared to about 1 million tons in 1981—triple the 1980 level. However, shipments of U.S. wheat and flour under Title I, P.L. 480 have remained steady at 1.5 million tons annually for the last 5 years. Imports of Australian wheat also remained steady during 1979-81, at 1.6 million tons annually. Egypt's imports of French wheat tumbled from 1.6 million tons in 1980 to less than 100,000 in 1981, but arrivals of subsidized French wheat flour rose to a record 930,000 tons. Imports of wheat flour nearly doubled in 1981—to about 1.4 million tons. The United States provided about one-fifth. Most of the imported flour is used for preparation of shamy bread, European types of bread, and an assortment of cakes and pastries.



The United States again provided most of Egypt's 1.34 million tons of corn. However, this was not adequate to end the serious shortage of animal feed. Corn is sold to feedlot operators and feed mills at less than half the import price. The Government remains the only importer of corn because of the huge subsidy, which costs \$200 million annually.

Egypt's vegetable oil imports increased 14 percent in 1981, to 312,000 tons. Imports of cottonseed remained steady at 173,000 tons as larger European supplies offset smaller deliveries by the United States. Brazil and Spain provided a large part of the 91,700 tons of soybean oil imported, and the United States and Romania provided most of the 47,400 tons of sunflower oil. Sugar imports increased markedly, to 583,000 tons. Although it was a net exporter in the early 1970's, Egypt now imports nearly half of its sugar. Most of the sugar imports are provided by Brazil, France, Italy, and Cuba.

Beef purchases increased 50 percent to about 123,000 tons. The major suppliers were Argentina, the EC, and France. Another large increase in beef imports is underway in 1982. Egypt received 25,000 tons of beef from Argentina in the first 3 months of 1982, and the volume may reach 80,000 tons—double 1981. While beef purchases may total 180,000 tons in 1982, imports of poultry should decline. In 1981, government imports of poultry meat increased to 84,000 tons, and total purchases rose to about 125,000. The Government limited 1982 imports for 6 months in order to give local producers a chance to benefit from the greater demand and to make improvements in the infrastructure. It now appears that Egypt's 1982 imports of poultry meat will be only about half 1981's.

Egypt's agricultural exports increased only slightly to almost \$700 million in 1981. Rice exports declined from 184,000 tons in 1980 to 135,000 last year, as shipments to South Korea tumbled. Rice exports ceased after deliveries of 25,000 tons were made to the Mideast, Finland, and Italy in early 1982. Exports of farm commodities handled by public-sector firms are declining. Orange and onion exports are likely to drop because of domestic shortages and rapidly rising prices. On the other hand, co-ops have been successful in maintaining potato exports at about 150,000 tons annually. Exports of jasmine paste to the Soviet Union and France may increase this year.

Cotton exports are facing problems. Their levels in the early 1970's were nearly double the average volume of 173,000 tons shipped during 1979-81. The loss of the Soviet market was mainly responsible. Exports remained steady at about 178,000 tons in 1981 with a value near 1980's \$423 million. Japan, China, Romania, and the EC were the leading markets. Representatives of Egypt's public-sector export companies have not yet cultivated the necessary contacts to substantially penetrate the growing cotton markets in South Korea, Taiwan, and Singapore. In 1982, the cotton area was reduced 9 percent because of the difficulty in expanding exports and the lack of modern storage facilities.

Overall, Egypt's total agricultural imports will likely rise to about \$4.5 billion in 1982, with larger purchases of wheat, corn, beef, dairy products, pulses, and tobacco. Grain imports may approach 8 million tons, up from 7.2 million in 1981. U.S. agricultural exports to Egypt may increase about 15 percent to \$1.15 billion. Larger deliveries of wheat and corn will more than offset lower unit prices for those items. Shipments of wheat and flour under Title I, P.L. 480 financing are scheduled to be

about 1.5 million tons. Egypt receives about \$150 million worth of U.S. farm products through Commodity Import Program (CIP) loans. CIP funds for tobacco shipments in 1982 are scheduled to double—surpassing \$22 million. (John B. Parker)

## Morocco

### Drought and Weak Phosphate Market Hold Back Economy

Morocco's 1981 GDP increased 15 percent at current prices, but only 2 percent in real terms. The increase was below the already sluggish 4-percent average of 1978-80. A set of events largely beyond Morocco's control caused the economic setback. Most harmful was the drought that reduced the wheat and barley crops by more than 50 percent. As the effects of the drought rebounded throughout the whole economy, sales and manufacturing also declined. Agriculture's contribution to GDP dropped by 22 percent. Foreign reserves and loans badly needed for investment were diverted to pay for extra imports of more than 500,000 tons of grain. The cost of subsidies doubled, reaching almost \$500 million, despite IMF-prescribed cuts in those for flour, vegetable oil, dairy products, and sugar. The rise in the value of the U.S. dollar, from 3.80 dirhams in 1980 to 5.30 dirhams at the end of 1981, increased the cost of food and petroleum imports. Morocco imported about the same amount of oil in 1981 as in 1980, but it paid \$269 million more for it.

Weak demand for phosphate rock and phosphate products held down earnings from these principal exports. The trade deficit increased from 7.1 billion dirhams at the end of 1980 to 10.7 billion at the end of 1981. The current account deficit rose from 5.6 to 9.2 billion dirhams.

The war in the Sahara required a 13-percent increase in military spending, which accounted for about 40 percent of the 1981 budget. The estimated budget deficit was 1.1 billion dirhams.

Morocco did well to show any growth at all in the face of such negative conditions. The IMF recommended that Morocco restrict further increases in external borrowings on all but concessional terms, and that it reduce its budget deficit, but Morocco continued to borrow to finance its trade deficit. In addition, about 30 percent of new public-sector borrowing went to service old debts.

### Drought Shows Weakness of Agriculture

Production fell by 22 percent in 1981. The output of wheat, barley, and corn dropped by 54 percent and covered a little more than 30 percent of normal domestic consumption. Other crops, including those under irrigation, were also damaged. Citrus production was down 6 percent, and cotton declined 9 percent. A shortage of irrigation water in the Gharb reduced the rice crop. Sugar beet production was down 4 percent. On the other hand, sugar cane output, at 621,500 tons, was up 66 percent, the result of an 80-percent increase in acreage. Sugar cane, an ancient crop dating back thousands of years in Morocco, has only recently been planted again on a large scale. Cane currently accounts for 15 percent of Morocco's raw sugar output.

Starvation and forced slaughter reduced cattle numbers by 10 to 15 percent and sheep by 30 to 35 percent. The overall decline in the country's animal produc-

tion averaged about 20 percent. The estimated value of the loss was 14.5 billion dirhams (\$2.74 billion).

Even before the drought, the average annual growth of agricultural production was only 2 percent, well below population increases of more than 3 percent. In 1980 (a normal year), per capita food production was 9 percent below the 1969-71 average.

Morocco's agriculture consists of two totally different production systems. On the one hand, modern agribusiness operations, controlling about 34 percent of the agricultural land, produce 85 percent of the commercial output, including most of the citrus, vegetables, and wine. The other system embodies 452,000 rural households with no cultivable land, and more than a million with less than 5 hectares each. The latter two groups account for 80 percent of the farms but have only 25 percent of the cropland. Barley and wheat are principal crops under the second system. The fact that approximately 80 percent of the wheat and over 90 percent of the barley produced is consumed on the farm demonstrates the key position of the small farm in cereal production. It also explains the lack of growth in grain production. Thousands of small farmers are beyond the reach of extension services and do not have the resources to use modern inputs. The majority of farmers are dependent on one or two cattle for power, with implements limited to a crude plow. Even on farms with tractors, the tillage methods often waste energy, land, and water. A recent World Bank study concluded that these nonirrigated farms produce at only 30 to 40 percent of their capacity.

The drought exacerbated the already precarious situation of the small farmers and demonstrated the inefficiency of the production system. Last December and January, when enough rain finally arrived to plant the 1982 crop, the Government was forced to marshal machinery resources to try to get the wheat and barley crop planted before it was too late. Under the traditional "touiza" or collective work program, farmers with tractors made them available to those without.

Emergency efforts to cope with the effects of the drought appear to have been only partially successful. Almost 42 million dirhams were allocated to the livestock sector as part of a 90-day emergency relief program, but this may have been too little in face of the magnitude of the drought. In addition, supplies of feedstuffs remained relatively scarce, and prices stayed high, despite the Government's efforts. Black markets for animal feed attested to their scarcity. However, huge food imports and the rural food-for-work projects prevented mass starvation and kept many families from migrating to the cities.

### **Wheat Leads Record Agricultural Imports**

Exports increased by 19 percent when valued in dirhams, but the dollar value, at \$2.3 billion, was down 8 percent from 1980. Phosphate rock and phosphate products accounted for 45 percent of the total, about the same as in 1980.

The value of agricultural exports was \$550 million, about the same as in 1980. The most important items were citrus fruits, \$150 million; canned vegetables, \$39 million; fresh tomatoes, \$37 million; and fresh vegetables excluding tomatoes, \$18 million. Other exports were cotton, wine, canned fruit, jam, fruit juices, vegetable juices, canary seed, horsemeat, potatoes, essential oils,

plants, dehydrated vegetables, pulses, olive oil, and almonds.

Citrus exports were down slightly in volume, but this was offset by an increase in value. Exports of fresh tomatoes, tomato products, and potatoes declined sharply, continuing an established downward trend that arises from competition from the EC and other Mediterranean producers. The entry of Spain and Portugal into the EC will likely further erode Morocco's share of that market, reducing exports of citrus and vegetables, as well as cotton textiles.

Abnormally large purchases of wheat and feed grains lifted agricultural imports to a high of \$1.2 billion. Wheat and corn accounted for about one-third. Other important commodities were sugar, \$210 million; vegetable oil, \$102 million; milk, butter, and cheese, \$62 million; tea, \$55 million; tobacco, \$43 million; wool, \$15 million; and cotton, \$14 million. Large quantities of beet pulp, alfalfa pellets, and hay were imported under a 90-day emergency program to save animals, but data on their value are not available.

U.S. agricultural exports to Morocco were worth \$158 million in 1981, a 19-percent increase over 1980. Wheat was the principal commodity. Other commodities were corn, barley, baby chicks, cattle hides, soybeans, soybean oil, tallow, cotton, and blended food products for relief. U.S. agricultural imports from Morocco were capers, olives, dried vegetables, coriander, oranges, and essential oils—totaling \$1.6 million.

Morocco's trade is overwhelmingly oriented toward Europe, especially the EC. France alone supplies 25 percent of the country's imports and takes 25 percent of its exports. The United States is normally the leading grain supplier but sometimes is the residual supplier. France, often a close second, was in first place in 1980.

### **More Grain Output Expected by 1985**

The drought has given more impetus to the Government's stated policy of increasing agricultural production—a policy that often was not supported by the required actions and the necessary resources. Morocco's new 5-year plan (1981-85) gives priority to increasing food self-sufficiency and decreasing population growth. The nonirrigated subsector is to receive more resources and will for the first time gain equal importance with the irrigated subsector. Since the main crops of the nonirrigated subsector are wheat and barley, the plan calls for a 3-percent annual increase in production of these crops. This is to be achieved through the use of improved techniques, better seed, and the wider distribution of fertilizers—all of which require an input package specifically developed for the traditional farms and a new role for extension contacts with small farmers. Average yields in normal years are only 15 bushels an acre for wheat and 20 for barley. These are below the targeted potential, and thousands of small farmers have even lower yields than these. Demonstration plots in diverse regions of Morocco have yielded 30 to 45 bushels for wheat and slightly more for barley.

In May 1982, the U.S. Government announced a 5-year cooperative aid plan to improve production of hard wheat in central Morocco. This program will require Moroccan contributions in addition to the \$200 million the United States is likely to provide.

Increased support prices and producer subsidies have had only modestly favorable effects on grain production



and have generally benefited the more well-to-do farmers. Increased support prices for barley and corn, from 800 dirhams a ton in 1979 to 960 dirhams in 1981, have not had the hoped-for effect of stimulating production.<sup>1</sup> The support price for wheat in 1981 was 1350 dirhams (\$255) a ton, up from 1250. Producer subsidies include irrigation water at a fraction of cost, fertilizer and seed below cost, credit and machinery services, and reduced feed prices. Lack of an adequate distribution network for these subsidized inputs has limited their availability and required rationing in many cases.

While Morocco still has all its basic problems—rapidly increasing population, an inefficient agricultural sector, a chronic trade deficit, and large defense and debt-service expenditures—its economic position is expected to improve in 1982. Prospects for a better crop, heightened by spring rains, have introduced a sense of optimism. Other positive conditions are stable petroleum prices and steady import quantities, expectations for reduced grain imports, and a stable exchange rate. However, 1982 may be a bad year for phosphate exports. Morocco may see a further drop in both the price and the quantity exported. (Herbert H. Steiner)

## Tunisia

### Economic Growth Continues

Tunisia's GDP at current market prices increased by 15 percent to 4 million dinars (\$8 billion) in 1981.<sup>2</sup> However, real growth as expressed in constant 1972 prices was only 6.5 percent. All sectors of the economy shared in the growth. Manufacturing led with 12 percent, followed by agriculture with 7 percent. Mining and tourism showed small gains. Tunisia's per capita GDP surpassed the \$1,000 mark in 1980.

Petroleum production was 5.4 million tons, down 3.5 percent from 1980. Production from existing wells has peaked and is expected to decline in the 1980's. However, a new discovery in the southern coastal region augurs a reversal in this downward trend. The increased income from petroleum was due to higher prices and continued demand for Tunisia's high-grade, low-sulfur petroleum. Exports of petroleum products totaled 5.3 million tons—up from 4.8 million in 1980. Their value rose 35 percent to 647 million dinars (\$1.32 billion). Exports of phosphate products, textiles, and olive oil, Tunisia's other major foreign exchange earners, also increased. Nevertheless, these gains were more than offset by large increases in imports of petroleum products, sugar, grains, dairy products, and textiles, thus increasing the merchandise trade deficit. Foreign investment financed much of the current account deficit.

### Agricultural Production and Trade Increase

Agricultural production expanded by 7 percent in 1981. Most crops showed advances, with the exception of barley, citrus, and wine grapes. The biggest gainer, olive oil, was up 71 percent from 1980, partly for cyclical reasons

and partly because of propitious rainfall. Since olive trees seldom produce a maximum crop 2 years in a row, production in 1981/82 decreased by about 40 percent.

The 1981 grain crop was up 23 percent. Durum output rose 9 percent to a record 804,000 tons. The good harvest was attributed to increased use of herbicides, fertilizers, and high-yielding varieties. Bread wheat production was up 23 percent to 159,000 tons. Bread wheat, grown largely on commercial farms in the north, yielded a record 1,684 kilograms per hectare. Herbicides that were applied on 130,000 hectares controlled the wild oats that have reduced yields in the past. However, barley production, based mainly in the central part of the south, where spring rainfall was virtually nonexistent, fell 30 percent.

In 1982, grain production totaled 1.4 million tons, an 11 percent increase over 1981. Timely rains and increased fertilizer use in the north compensated for the drought in the south.

Tunisia's exports were valued at \$2.5 billion in 1981. In dinars, this represented a 13-percent increase over the 1980 figure. The biggest rise was in petroleum, followed by smaller gains in phosphates, fertilizers, textiles, and olive oil. Agricultural exports were valued at \$210 million, of which olive oil accounted for almost half. Other important exports were wine, citrus, dates, and vegetables.

Imports totaled \$4 billion, a 12-percent increase in dinar terms. Agricultural imports showed a 25-percent gain to \$408 million. Purchases of wheat, barley, and corn accounted for roughly half. Other significant items were dairy products, live animals and meat, sugar, coffee, tea and spices, soybean oil, cotton, tobacco, and hides. U.S. agricultural exports to Tunisia declined from \$101 million in 1980 to \$83 million in 1981, because of a drop in both the quantity and price of wheat.

### Increased Farm Investment To Spur Output

The 1982-86 development plan aims at a 5-percent annual increase in agricultural production. Investments in the farm sector will total 1.3 billion dinars, or 60 percent more than under the 1977-81 plan. Two important objectives are to equalize the wide gap between the standard of living for the urban and rural population and to reduce the agricultural trade deficit by achieving greater self-sufficiency in food.

Tunisia expects to move away from the complex system of subsidies and price controls that often favored consumers at the expense of producers. Subsidies on that barley and bran used in the manufacture of concentrates for cattle and sheep were abolished in November 1981, raising feed prices. Previously, low feed prices encouraged the uneconomic use of concentrates. The price feed mills paid for barley increased from \$76 to \$160 a ton, and bran rose from \$40 to \$80. The subsidy on corn was continued for the time being, because corn is largely used for poultry products, the cheapest and most popular source of animal protein.

In 1981, consumer subsidies cost 153 million dinars (\$312 million), 3 percent of GNP. This year's subsidy expenditures will likely reach 186 million dinars (\$379 million). The Government will try to reduce expenditures through two-stage price increases. The first increase went into effect early in 1982 and absorbed 20 million dinars by increasing the prices of barley, milk, meat, and bran.

<sup>1</sup>The dollar value depends on the exchange rate, but it ranges between \$213 and \$237 a ton.

<sup>2</sup>The decline in the dollar value of the Tunisian dinar, from \$2.47 in 1980 to \$2.04 in 1981, underestimates the 1981 financial data when expressed in dollars.

Grain production is expected to increase to 1.5 million tons by 1986. The expansion will depend on increased use of fertilizer, herbicides, mechanization, and high-yielding varieties. Potential grain production is estimated at 2.4 million tons with above-average growing conditions, and

at 1.7 million tons with average conditions. In the meantime, grain imports of 500,000 to 1 million tons will likely be needed for the foreseeable future. (Herbert H. Steiner)

## MIDEAST RICE IMPORTS MAY INCREASE 15 PERCENT IN 1982

The Mideast is of extra importance for rice exporters in the United States and Thailand this year, because imports by South Korea and Indonesia are down sharply. In contrast, rice imports by the Middle East and North Africa are likely to increase about 15 percent to almost 3 million tons. However, lower world prices will prevent any significant increase in value beyond the \$1.5 billion recorded for the region's rice imports in 1981. Relatively expensive basmati and other types of long grain rice are popular in the Mideast.

Rice imports by the Mideast and North Africa increased 16 percent in 1981, to about 2.6 million tons. Iran emerged as the leading importer, surpassing Saudi Arabia, which was in second place. Iraq was the third largest. These three countries accounted for over half of the region's rice imports. Saudi Arabia's imports have increased steadily, from 340,000 tons in 1979 to about 550,000 in 1981. Imports by Iran climbed about one-third in 1981, to 630,000 tons. Iraq's imports declined from a peak of 425,000 tons in 1980 to less than 400,000 in 1981, because of war damage to its ports. In 1981, Thailand surpassed the United States and became the leading supplier of Mideast rice. Taking 349,000 tons, Iran accounted for half of Thailand's sales.

### Subsidized Rice Increases Demand

Subsidies enable consumers in Saudi Arabia, Iran, Iraq, and the Gulf sheikdoms to purchase imported rice at reasonable prices. In Kuwait subsidies cover about half the cost of imported rice. Egypt has the lowest retail prices for rice in the Mideast—less than 5 cents a pound, or

one-sixth the average U.S. price. Egypt's policy of low food prices through subsidies has been adopted in various ways by petroleum-exporting countries. Per capita rice consumption has increased in the wealthiest petroleum exporters (Saudi Arabia, Kuwait, UAE), while it declined over the last 4 years in Egypt and Iran because output did not grow as fast as population. Government agencies handle rice imports in Iran, Iraq, Algeria, Libya, Kuwait, Yemen, and Syria.

Income elasticity for rice is higher in the Mideast than in the United States. Rice is served with some foods that are becoming more popular, including mutton, beef, chicken, and lentils. Officials in Kuwait are concerned that their subsidy is so great that human consumption may account for only half the quantity entering the country. However, a considerable part of the rice not consumed at the dinner table may be used later as chicken feed. Rice is rationed in Egypt, and virtually all the supply sold at cooperative stores is for human use.

### Rice Imports Show a Mixed Picture

Imports of rice by the UAE reached a peak of 347,000 tons in 1980, when a thriving transit trade with Iran was underway. The volume declined to about 225,000 tons in 1981, when Iran shifted to direct purchases.

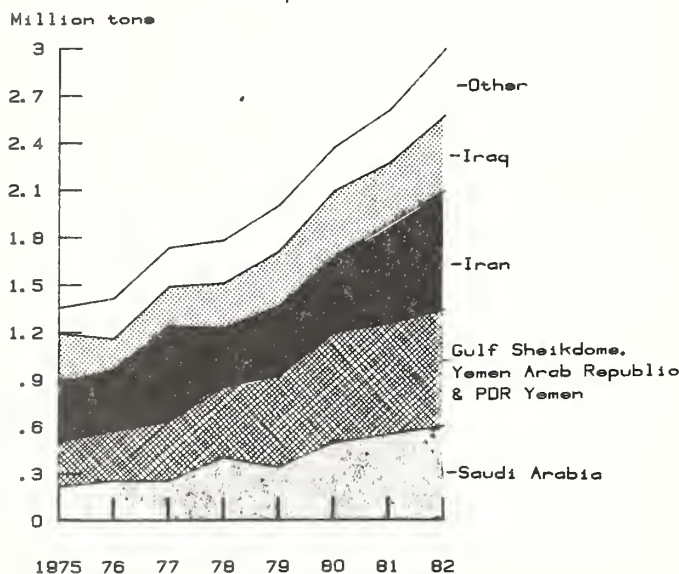
Three Mideast countries—Syria, Kuwait, and the YAR—import 100,000 to 125,000 tons of rice annually. Thailand and Pakistan are their major suppliers. Australia is a new supplier for Kuwait.

Israel and Libya import about 50,000 tons annually. Italy and Argentina are important rice suppliers for these two countries. The United States provided about one-fifth of Israel's imports and about 3 percent of Libya's in 1981. Turkey is another significant rice importer, with purchases ranging from 30,000 to 50,000 tons annually. Pakistan, Thailand, and Italy have been the leading suppliers.

U.S. rice exports to the Mideast and North Africa declined from 723,000 tons in 1980 to 523,000 in 1981, and the value fell from \$359 to \$297 million. The average price for U.S. rice exports to the region was about \$568 a ton in 1981, but it may average less than \$500 in 1982. Much larger sales to Iraq and possibly Iran indicate that the volume may rebound to about 720,000 tons, and that the U.S. share would rise from 20 percent in 1981 to possibly 24 percent this year.

In MY 1981/82, Iraq's purchases of U.S. rice surpassed 275,000 tons, indicating that 1982 deliveries might be triple 1981's 74,000 tons. Iran has returned as a customer for American rice, although Thailand is still their major supplier. U.S. rice exports in 1982 should be more than double the 1981 volume of 112,000 tons listed for direct shipment to Iran. In addition, U.S. sales to the UAE rebounded to 67,000 tons in early 1982—nearly quadruple 1981—presumably for the transit trade.

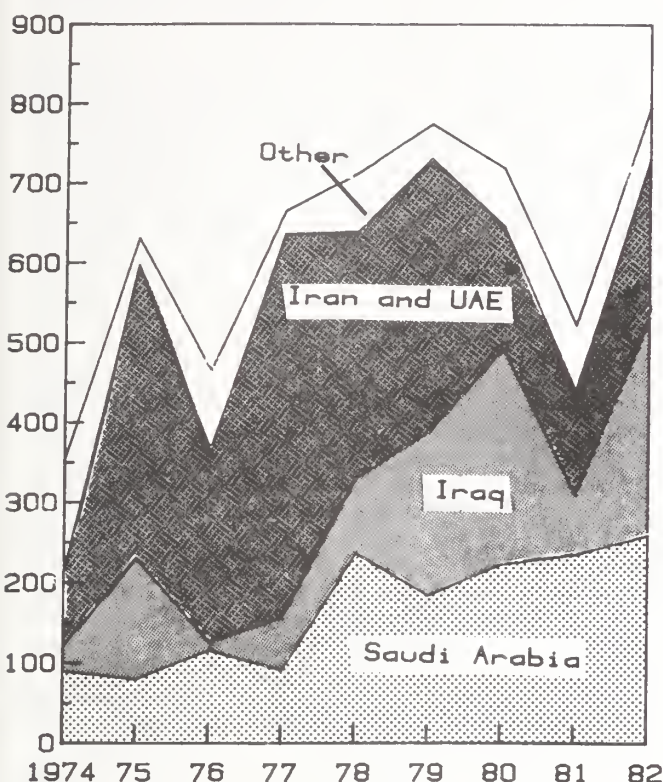
Mideast Rice Imports





## U.S. Rice Exports to the Mideast

Thousand tons



Saudi Arabia's rice imports are likely to surpass 600,000 tons in 1982, including about 250,000 from the United States. Pakistan and Thailand are likely to send more, but Egypt and India will send less.

U.S. exports to the YAR doubled in 1981, reaching 28,000 tons. Further gains are underway for 1982. Last year, Algeria purchased 5,000 tons—five times the 1980 level. More gains are likely in 1982.

In 1982, Thailand's rice exports to all countries should again exceed 3 million tons worldwide. The Mideast is likely to account for about one-fourth of the volume and one-third of the value. Further gains in sales to Iran, to over 400,000 tons, and larger shipments to the Arabian Peninsula will allow Thailand to boost rice sales to the region. Pakistan's exports to the Mideast may surpass 350,000 tons in 1982. Its deliveries to Iran and Saudi Arabia may be in the 100,000-ton range.

### Production Remains Stable

Egypt produces over 60 percent of the region's rice output of about 2.6 million tons. Iran accounts for 30 percent. Turkey and Iraq make up most of the remainder.

Egypt is in a unique position now. Rice exports declined from 184,000 tons in 1980 to 134,000 in 1981. The estimate for 1982 is only 25,000 tons. Egyptians receive a ration for rice purchases at co-op stores, where prices are about one-third less than the \$150 a ton the Government pays to farmers. Per capita use is now about one-fifth below the peak attained in the early 1970's. However, an abundance of subsidized bread has prevented any hardship from dwindling per capita rice consumption.

The possibility of becoming a considerable rice importer is now under discussion in Egypt. Although imports would prevent a further decline in per capita use and could be obtained under bargain arrangements and attractive prices, imported rice would probably need to be sold on the open market at about four times the co-op price of \$100 a ton. Nevertheless, this would provide a windfall cash position for public agencies and calm concern about soaring expenditures for food subsidies. If Egypt imports rice in 1982/83, the volume would be relatively small—possibly 30,000 to 50,000 tons.

Iran's rice imports may increase 20 percent in 1982, to about 750,000 tons. Iraq's imports could reach 500,000 tons, with over half coming from the United States. Total rice imports by the Arabian Peninsula may rise to 1.4 million tons. (John B. Parker)

## WORLD COMPETITION FOR THE MIDDLE EASTERN AND NORTH AFRICAN

### AGRICULTURAL MARKETS INTENSIFIES

In 1974, when the Middle Eastern and North African food import boom began, the United States and the EC were virtually equal suppliers. The quadrupling of petroleum prices in 1973 occurred at a time when U.S. grain stocks were relatively large and supplies were short among exporters in Europe and the Southern Hemisphere. However, striking gains in petroleum revenues, proximity to the market, and both exporter and importer subsidies all attracted the attention of EC food exporters. Therefore, by 1976, the EC surpassed the United States as the leading supplier of farm products to the region.

In 1980, EC agricultural exports to this market increased 56 percent to \$6.8 billion, 2.7 times greater than U.S. shipments. However, U.S. sales in 1981 rose 27 percent to \$6.9 billion, as grain exports to Iran rebounded and substantial gains were made in exports to

Egypt, Algeria, and Saudi Arabia. Nevertheless, EC shipments increased at about the same pace and soared to a record \$8.7 billion. Over half the EC shipments were subsidized.

The commodity composition of EC and U.S. agricultural exports is different. Cereal and products account for about two-thirds of the value of U.S. shipments, but only about one-fourth of EC exports. The EC is a much larger supplier of higher priced foods, such as dairy products, meat, sugar, and consumer-ready items. Most of the EC cereal shipments in the last 3 years went to North Africa, particularly Egypt, Algeria, and Morocco. EC exports of wheat flour to Saudi Arabia have displaced a considerable portion of U.S. sales, but this country has received the largest orders for wheat.

In 1982, the combination of expanding sales of sugar, dairy products, meat, and processed foods could push the value of EC agricultural exports to \$11 to \$12 billion—a gain of 40 percent. The outlook for U.S. farm product exports is less optimistic, because of lower prices for cereals and vegetable oil. In addition, sharp declines are likely for U.S. exports of poultry meat and sugar. Some bright spots include a larger volume of wheat to Egypt and Morocco, more rice to Iraq, and expanding sales of horticultural products to the Arabian Peninsula.

### Share of the Market

In 1979, the EC provided 24.1 percent of the region's agricultural imports. In 1980, it was 28.6 percent, and in 1981, nearly 30 percent. At the same time, the U.S. share declined from 13.1 percent in 1979 to 10.7 percent in 1980. The tripling of our sugar exports to the region and larger sales of wheat and livestock products boosted the U.S. share slightly—to 11.1 percent in 1981. It appears that our share may be below 10 percent in 1982, while the EC portion rises to nearly one-third.

Despite strong competition from the EC, Australia, Thailand, and Brazil, the value of U.S. agricultural exports to the region could increase about 10 percent to \$3.5 billion in 1982, even without a significant rebound in sales to Iran and Iraq. Much larger sales to these two countries could push the U.S. value to almost \$4 billion.

### EC Subsidies

The EC has an array of subsidies that help bolster its sales to the region. In addition, its shipping costs are lower, and it provides travel incentives to sales representatives. For example, some European airlines have special rates that allow sales personnel to travel frequently. Furthermore, European countries give favorable tax treatment for their citizens in the Mideast who work on infrastructure projects and market development activities.

### Cereal and Products

During the recent decade, the region's grain imports have shown a steady upward trend, reaching 33.1 million tons in 1981. This included 20.3 million tons of wheat and flour, 2.6 million of rice, and 10.2 million of feed grains. The United States exported 11.4 million tons of grain valued at nearly \$2.4 billion to the Mideast and North Africa in 1981.

A slower pace for wheat imports by Algeria and Turkey may cause the region's purchases to grow only about 13 percent to about 23 million tons in 1982. Rice imports may approach 3 million tons. Feed grain imports are likely to rise to about 13 million tons, pushing total grain purchases to about 39 million tons.

Total imports of wheat and flour by 21 countries in the Mideast and North Africa increased about 10 percent in 1981—to about 20 million tons, slightly more than shipments to the Soviet Union, the world's largest wheat importer. The EC, Australia, and the United States accounted for about three-fourths, valued at \$3.6 billion. U.S. exports to the region soared 62 percent to nearly 7 million tons valued at \$1.26 billion. U.S. exports of wheat and flour to Egypt increased 48 percent to about 2.5 million tons, valued at \$431 million. Exports to Algeria more than doubled to 673,000 tons valued at \$132 million. The greatest market growth was in Iran

and Turkey. U.S. exports to Iran rebounded from 50,000 tons in 1980 to 1 million last year. Exports to Turkey were 446,000 tons in 1981, with shipments in 1982 nearly as large. U.S. wheat shipments to Morocco increased 41 percent in 1981, to 753,503 tons worth \$113 million. Morocco's purchases of EC wheat doubled to about 1.5 million tons.

EC cereal exports rose from \$1.5 billion in 1979 to \$1.8 billion in 1980 and about \$2 billion in 1981. Exports of cereal and products to Egypt reached \$419 million in 1980—nearly double 1979, because of larger deliveries of French wheat. Algeria and Morocco were the other two major markets, with shipments to Algeria about double the 1979 value of \$174 million. French exports of wheat to Iran increased to about 242,000 tons in 1981—up from only token levels in the 2 previous years. French deliveries of wheat flour to Egypt increased 150 percent to over 900,000 tons.

In 1981, the United States provided slightly over one-third of the region's total imports of feed grains, estimated at about 10.2 million tons. The EC also provided about one-third. Australia, Sudan, Thailand, and Argentina were other important suppliers.

EC barley exports to the Mideast increased sharply in 1981 because of larger sales to Saudi Arabia and Iran. Meanwhile, U.S. corn exports to the region increased 20 percent to 3.1 million tons.

In 1982, U.S. exports of feed grains could reach 4.7 million tons—about 1 million more than 1981. Larger corn sales to Egypt, Saudi Arabia, and Iran will be major factors.

Total Mideast rice imports increased from 2.25 million tons in 1980 to about 2.6 million in 1981. Italy was the major EC supplier, sending about 100,000 tons. Syria, Lebanon, Algeria, and Saudi Arabia were important markets. Some U.S. rice was sent to duty-free zones in Italian ports before moving to the Mideast.

### Poultry Products

The region's total imports of poultry meat increased about one-third in 1981, to about 800,000 tons valued at about \$1.1 billion. U.S. exports of poultry meat to the region more than tripled in 1980, to 97,000 tons, and increased 11 percent in 1981. Last year's U.S. shipments were valued at \$136 million. Drastic reductions in our sales to Egypt and Iraq could drop the total value to \$60 million in 1982.

EC exports of poultry meat reached 300,000 tons in 1981—double the 1977-79 average. The value was \$400 million, compared with \$161 million in 1979. Shipments of French poultry meat to Saudi Arabia increased 32 percent to 93,500 tons. EC exports of poultry meat to Iran, Iraq, the Yemen Arab Republic, and the UAE each exceeded 20,000 tons.

Brazil, the second largest supplier, provided about 260,000 tons in 1981. Some of the leading destinations were Iraq, 71,000; Saudi Arabia, 56,000; Kuwait, 53,000; Egypt, 45,000; and Jordan, 16,000. Most meat sent to Jordan went to Iraq. Iraq was the fastest growing major importer of poultry meat in the Mideast in 1981, with nearly 155,000 tons—about double 1980. Brazil, France, the United States, and Hungary were that country's largest suppliers. Saudi imports decreased from 194,000 tons in 1980 to about 181,000 in 1981.

The war will leave Iran and Iraq with greater import needs. Furthermore, Saudi Arabia's imports of poultry



meat may increase over 20 percent in 1982. On the other hand, Egypt banned foreign purchases of poultry meat by public agencies for 6 months beginning in March 1982. However, this did not mean that all poultry shipments ended. Private imports continue, some public tenders are still scheduled for delivery, and purchases for late 1982 are still under consideration. The ban stemmed from a combination of factors. Last year's large imports strained Egypt's limited infrastructure for handling such a perishable item. Furthermore, the difficulty in distributing the poultry meat from Alexandria's harbor to the major consumer center of Cairo was probably further exacerbated this summer by the increased use of refrigerated trucks for larger beef imports. Government programs to purchase poultry meat from farmers for \$1.45 a kilogram and to sell it in cooperative stores for \$1.25 should have been bolstered by the ban. Yet, the increased poultry meat output, from 135,000 tons in 1981 to about 151,000 in 1982, has not compensated for reduced imports.

The United States sent 65,000 tons of poultry meat to Egypt in 1981, including 10,000 financed under Commodity Import Program (CIP) loans. U.S. sales in 1982 may be about half that volume, corresponding to Egypt's total imports, which may be about half 1981's 125,000 tons. On the other hand, the private trade's imports of turkey meat will remain strong.

The upward trend in U.S. egg sales to the area is likely to continue, although shipments to Iraq may fluctuate widely on a monthly basis. In 1981, Iraq was the leading foreign market for U.S. eggs, taking 24.6 million dozen eggs valued at \$16.6 million. Half of the top 10 markets for U.S. egg exports were in the Mideast last year.

## Beef

The region's beef imports increased about 20 percent in 1981, to about 472,000 tons valued at approximately \$1.3 billion. Further growth to nearly 625,000 tons and almost \$1.8 billion may occur in 1982, and the Mideast and North Africa may soon surpass the United States in beef imports.

In 1982, Egypt's beef imports are likely to rise more than 40 percent above 1981's 122,500 tons. Argentina delivered nearly 40,000 tons last year, and during January-March 1982, Argentine shipments already totaled 25,400 tons. Argentina has an arrangement to send a minimum of 40,000 tons in 1982, and the total could be as high as 80,000. The attractive price of \$1,850 a ton may cause Egypt to make the largest possible purchases of Argentine beef. Uruguay plans to send 38,000 tons of beef and 13,000 of mutton to Egypt in 1982—about double their 1981 deliveries.

Egypt's imports of beef from Denmark and France may increase again in 1982. In addition, EC sales of boneless beef to Egypt and the Arabian Peninsula are rising.

Australia has been a leading supplier of the growing beef imports of Saudi Arabia, Iran, and Iraq. In 1981, Saudi imports of beef increased about 54 percent to 62,000 tons valued at \$180 million. Australia and India each provided about one-third.

The United States has developed a special market for high quality cuts of beef among the hotels, restaurants, and catering firms in Saudi Arabia. U.S. exports to Saudi Arabia increased 78 percent in 1981, to 3,146 tons valued at \$18.3 million, an average of \$5,800 a ton. Denmark and France are also expanding their sales of expensive beef cuts to Saudi Arabia. Their deliveries to Saudi Ara-

bia were about double the U.S. quantity, but the average price was lower.

Iran's imports of beef soared to about 80,000 tons in 1981, with larger arrivals from Australia, Argentina, and the EC. Iran also raised purchases of New Zealand mutton to over 100,000 tons. In 1982, Argentina is likely to send more beef to Egypt, Iran, Iraq, Israel, and Kuwait. Obstacles in expanding sales to the EC may cause Argentina to seek a larger market share in the Mideast.

## Dairy Products

Success stories for EC sales of dairy products in Mideast markets are numerous. In addition to subsidies, various market-development activities and technology-transfer projects are used. Representatives of EC dairy associations stationed in the Mideast provide services for customers and analyses of market opportunities.

EC exports of dairy products to the Mideast and North Africa reached \$1.9 billion in 1981, up from \$1 billion in 1980 and about 9 times the 1970 value. Sales may approach \$2 billion in 1982—about 100 times the value of U.S. shipments of these items.

EC exports to Iran and Algeria were in the vicinity of \$200 million each in 1980, and they hit nearly \$300 million in 1981. Over the last 2 years, exports to Egypt grew 70 percent to \$142 million. Dairy exports to Bahrain, Oman, Qatar, Syria, Libya, and PDR Yemen in 1980 and 1981 were greater than U.S. exports of all agricultural commodities to those markets. Furthermore, Syria, Libya, and Iraq are markets for over \$100 million worth of EC dairy products annually.

Algeria and Saudi Arabia are markets for 100,000 tons of EC dry milk. In addition, Egypt, Iran, and Iraq are each rapidly growing markets for over 25,000 tons annually. U.S. sales of dry milk to Mideast customers reached \$4 million in 1981. Egypt purchased 8,000 tons of nonfat dry milk valued at \$3.3 million.

EC butter exports to the Mideast and North Africa have increased markedly in the last several years and were about 210,000 tons in 1981, including over 40,000 to Iran. Egypt, Algeria, and Iran are leading markets—ranging from \$60 to \$100 million each.

EC exports of cheese to the Mideast and North Africa in 1980 totaled 328,000 tons valued at about \$1 billion. Last year, strong gains in sales to Iran, Iraq, Egypt, and the Arabian Peninsula pushed the value to about \$1.3 billion. Exports to Iran zoomed from 39,694 tons in 1979 to 72,795 in 1980 and approximately 100,000 in 1981. Aside from the EC, Iran is the world's largest importer of cheese.

U.S. cheese exports to the region reached \$2 million in 1981. Iran, Saudi Arabia, and the UAE were our major markets. A new market opened in Egypt with the purchase of 12 tons of cheddar cheese valued at \$34,000.

## Oilseeds and Products

The Mideast and North Africa imported about 2 million tons of vegetable oils in 1981. Iran's imports increased to nearly 400,000 tons, with Brazil as its largest supplier of soybean oil—over 225,000 tons. Egypt is the leading market for U.S. cottonseed oil, which declined 56 percent to 74,433 tons in 1981, because of greater competition from EC and Brazilian soybean oil. Brazil and the EC have recently increased sales of vegetable oils to the Arabian Peninsula, thereby hampering sales of U.S. corn oil.

Our exports of soybeans to the region reached 450,000 tons in 1981, including 300,000 to Israel and 65,000 to Lebanon. Egypt and Kuwait are significant markets. Saudi Arabia is a growing market for U.S. soybean meal. Total U.S. exports of soybean meal to the Mideast may exceed 100,000 tons this year. Algeria and the UAE are intermittent markets for U.S. peanuts. Sales of U.S. peanut preparations to Saudi Arabia, the UAE, and Kuwait have shown an upward trend.

The United States has not been traditionally known as a sugar exporter, but a rebate on exports of old stocks contributed to a boom in U.S. shipments of refined sugar to the Mideast in 1981. Exports were valued at \$100 million—triple 1980; almost half went to Turkey. While the value of U.S. sugar sales to the Mideast and North Africa will decline, EC exports will continue to rise sharply. EC sugar shipments to the area increased from about \$900 million in 1980 to approximately \$1.4 billion in 1981 with very large sales to Iran, Iraq, and Egypt. However, lower sugar prices will trim the rate of growth in value this year.

### **Pulses**

The boom in imports of dry beans, lentils, and peas by Mideast-North Africa countries continues. Government programs to improve the protein content of the diet have contributed to larger imports, often for sales to consumers at subsidized prices. Pulses do not require refrigeration, and are part of the traditional diet. Yet, many consumers are very selective about which pulses they buy. Lentils are popular in Algeria, Syria, Lebanon, Turkey, and Egypt. Pastes made from beans are used with bread in these countries.

Imports of pulses by the Mideast and North Africa increased from 360,000 tons in 1980 to about 500,000 in 1981. Higher prices caused the value to grow to about \$300 million. Turkey was the leading supplier of the region's pulses, followed by the EC, the United States, Syria, and Thailand. The EC and Poland were large suppliers of dry beans to Egypt.

U.S. exports of pulses to the region rose to 64,000 tons valued at nearly \$49 million in 1981, despite the loss of the Tunisian market, which took 3,800 tons of lentils in 1980. Lentil exports to Algeria increased 39 percent to 27,000 tons, and shipments to Egypt rose 21 percent to 9,000. These two countries accounted for half of our total exports of lentils in 1981. Algeria may increase lentil imports this year, taking over 100,000 tons from all sources, including possibly 33,000 from the United States. Egypt plans to import 160,000 tons of lentils—almost double 1981. Egypt's imports of U.S. lentils in the last 2 years were financed under CIP loans. Without new CIP loans, most of Egypt's lentil imports will likely come from Turkey, Syria, and Nepal.

### **Apples and Pears**

The Mideast has become an important market for U.S. apples. Gains in our apple sales to Saudi Arabia,

Kuwait, the UAE, and Egypt in the last 3 years helped offset smaller exports to Canada and Taiwan. The EC, Lebanon, and Chile are our major competitors. Egypt recently banned apple imports. Saudi Arabia imported a total of over 100,000 tons last year, and U.S. apple exports to this market increased 12 percent to 24,477 tons valued at \$14.7 million. The UAE and Kuwait are also growing markets, although their purchases are only about half the volume moving to Saudi Arabia. Plans to improve the schedules for refrigerated ships going from U.S. ports to the Gulf may provide greater opportunities for U.S. exports of apples and pears, particularly during March-June, when we have the greatest sales possibilities because Lebanon's apples are sold out by March.

U.S. exports of pears to Saudi Arabia reached 5,000 tons in 1981—triple 1980. Kuwait, the UAE, the Yemen Arab Republic, and Egypt were new markets last year.

### **Processed Foods and Beverages**

Some of the major markets for various U.S. processed foods—including peanut butter, potato chips, honey, nonalcoholic beverages, and certain canned foods—are in the Mideast. However, Japan and Taiwan are much more important than the EC or the United States as suppliers of fruit juices. Valued at \$600 million in 1981, Japan and Taiwan provided about half of the Mideast juice imports. Nevertheless, U.S. exports of fruit juices increased sharply to about \$10 million.

EC exports of snack foods and beverages to the Mideast were in the vicinity of \$1 billion in 1981. U.S. shipments were about one-tenth that value. Saudi Arabia has been the leading Mideastern customer for processed foods in recent years. Per capita imports by Kuwait and the UAE are also high, particularly for biscuits and chocolate.

### **Outlook**

Total agricultural imports by the Mideast and North Africa were a record \$29.1 billion in 1981. However, the rate of growth may decline from 22 percent last year to about 20 percent this year. Nevertheless, the volume growth for cereals will be strong because of lower prices. Saudi Arabia may increase grain stocks, and some countries may seek to replenish supplies in late 1982.

The total value of agricultural imports by the Mideast and North Africa could rise to about \$35 billion in 1982. The EC is likely to provide over 30 percent. Lower prices for wheat and rice will hamper strong gains in the value of U.S. agricultural exports this year, and our share may remain at last year's levels. (John B. Parker)



**Table 1 – The United States: Total trade with the Middle East and North Africa, by value 1980 and 1981**

Country	Exports to		Imports from	
	1980	1981	1980	1982
<i>Million dollars</i>				
Saudi Arabia	5,769	7,327	13,468	15,237
Kuwait	886	976	521	91
UAE	998	1,077	3,164	2,102
Qatar	129	157	250	120
Bahrain	198	297	17	38
Oman	95	180	363	369
PDR Yemen	7	6	19	1
YAR	77	44	1	1
Iran	23	300	478	66
Iraq	724	914	482	167
Syria	239	143	28	87
Lebanon	303	296	34	20
Jordan	407	727	3	2
Israel	2,045	2,521	978	1,280
Turkey	540	789	187	276
Cyprus	70	86	7	5
Egypt	1,873	2,159	572	412
Libya	509	813	8,905	5,476
Tunisia	174	222	63	12
Algeria	542	717	6,881	5,208
Morocco	344	429	41	41
Total	15,952	20,180	36,462	31,011

Source: Bureau of the Census.

**Table 2 – The Middle East and North Africa: Total agricultural imports and agricultural exports to the region by the EC and the United States, 1979-81**

Importer	Total agricultural imports			EC agricultural exports			U.S. agricultural exports		
	1979	1980	1981	1979	1980	1981	1979	1980	1981
<i>Million dollars</i>									
Egypt	2,523	3,363	4,012	456	861	1,100	601	770	967
Morocco	789	942	1,180	309	370	500	94	133	158
Algeria	1,634	2,450	3,100	487	731	880	126	176	291
Tunisia	456	502	600	139	217	240	63	101	83
Libya	893	1,103	1,200	398	573	685	18	15	14
Turkey	136	325	530	37	138	210	1	17	128
Syria	430	531	580	199	287	315	46	26	35
Israel	868	865	930	133	138	145	313	298	356
Lebanon	543	662	700	158	192	230	70	92	95
Jordan	389	439	500	119	141	170	32	71	65
Iraq	1,379	1,988	1,900	229	399	500	146	255	125
Iran	2,128	2,775	3,473	352	871	1,260	415	8	248
Saudi Arabia	3,088	4,400	5,970	710	1,024	1,370	326	375	466
Kuwait	798	1,012	1,300	146	198	285	23	47	60
UAE	930	1,330	1,200	173	295	314	44	114	59
Qatar	167	163	200	30	36	40	3	5	5
Bahrain	159	180	200	41	46	50	5	7	10
Oman	123	132	150	47	47	53	2	4	7
PDR Yemen	144	223	240	50	63	75	1	1	1
YAR	390	403	500	123	175	200	7	8	17
Cyprus	160	182	202	65	80	88	13	28	39
Total	18,127	23,970	28,667	4,401	6,882	8,710	2,349	2,551	3,229

**Table 3—The United States: Agricultural exports to the Middle East and North Africa by value for selected items, annual 1980 and 1981**

	Total agriculture		Wheat and flour		Rice		Corn		Poultry meat	
	1980	1981	1980	1981	1980	1981	1980	1981	1980	1981
<i>1,000 dollars</i>										
Saudi Arabia	375,411	465,588	59,783	93,691	127,805	153,623	2,689	4,203	21,263	9,332
Iraq	255,318	125,209	61,844	16,820	123,719	36,982	0	0	31,797	42,179
UAE	113,678	59,384	913	405	70,382	10,690	0	0	783	1,668
Kuwait	47,269	60,473	4,209	17,350	6,560	1,061	2,636	0	3,453	5,756
Algeria	175,620	290,900	52,517	132,479	560	2,569	17,467	51,182	132	0
Libya	14,580	14,081	2,903	—	3,070	1,579	0	4,658	0	4
Qatar	5,399	5,315	48	36	2,474	172	0	0	100	172
Iran	8,226	247,620	8,168	168,407	0	54,073	0	13,415	0	0
Egypt	770,205	967,266	295,862	430,974	0	1	130,976	189,328	47,844	75,653
Morocco	133,498	158,315	90,655	113,022	21	33	17,688	22,761	0	0
Tunisia	100,883	82,699	57,851	27,119	31	143	29,253	34,788	0	0
Sudan	65,748	73,777	57,835	59,302	0	53	0	20	0	0
Lebanon	91,577	94,792	30,525	31,492	486	577	29,061	20,266	234	192
Syria	25,686	34,561	1,255	0	0	0	12,734	23,002	4	0
Jordan	70,999	65,172	16,080	15,591	14,253	16,159	12,110	3,616	2,853	82
Bahrain	7,484	9,660	11	34	231	92	0	0	689	1,016
Oman	4,453	7,192	973	995	54	86	733	992	76	43
PDR Yemen	884	1,301	77	140	173	132	0	0	0	0
Yemen Arab Rep.	8,206	16,839	466	18	6,422	14,591	0	379	0	0
Israel	297,535	355,503	71,275	71,407	2,464	3,794	81,920	75,773	67	9
Turkey	17,269	127,942	0	71,389	15	17	0	0	0	0
Cyprus	28,458	38,608	3,327	5,843	106	108	5,363	4,924	0	0
Total Mideast & North Africa	2,618,386	3,302,197	816,577	1,256,514	358,826	296,535	342,630	449,307	109,295	136,106

Source: Bureau of Census.

**Table 4—The United States: Agricultural exports to the Middle East and North Africa by quantity for selected items, annual 1980 and 1981**

	Wheat and flour		Rice		Corn		Poultry meat	
	1980	1981	1980	1981	1980	1981	1980	1981
<i>metric tons</i>								
Saudi Arabia	266,823	460,612	224,335	236,156	20,574	27,493	17,112	5,102
Iraq	312,209	94,451	268,816	73,800	0	0	25,459	31,993
UAE	4,079	1,807	152,361	18,329	0	0	378	722
Kuwait	21,088	93,160	13,709	1,492	17,038	0	2,671	3,737
Algeria	254,996	673,443	1,016	5,353	139,043	342,249	149	0
Libya	16,084	0	3,514	1,507	0	29,820	0	2
Qatar	267	120	6,140	201	0	0	61	84
Iran	49,999	999,951	0	112,418	0	85,591	0	0
Egypt	1,683,732	2,486,956	0	1	984,188	1,346,765	47,946	65,100
Morocco	533,257	753,503	49	58	136,497	169,591	0	0
Tunisia	289,610	137,872	66	245	232,288	250,384	0	0
Sudan	317,926	337,318	0	209	0	68	0	0
Lebanon	163,884	181,798	699	629	220,841	140,954	123	97
Syria	6,750	0	0	0	98,080	179,856	4	0
Jordan	79,522	100,917	31,894	33,782	88,368	26,755	2,553	28
Bahrain	42	192	316	109	0	0	344	480
Oman	5,250	4,937	70	104	5,969	5,876	41	15
PDR Yemen	405	717	351	272	0	0	0	0
YAR	2,490	90	13,152	28,189	0	2,500	0	0
Israel	399,943	387,075	6,291	9,523	645,177	493,541	81	2
Turkey	0	446,076	20	27	0	0	0	0
Cyprus	17,120	36,004	143	118	39,071	35,498	0	0
Total Mideast & North Africa	4,425,476	7,196,999	722,942	522,522	2,627,134	3,136,941	96,922	107,362

Source: Bureau of Census.



**Table 5—EC: Exports of selected commodities to the Middle East and North Africa, annual 1979-81**

	Dairy products			Poultry meat			Cereal			Sugar		
	1979	1980	1981*	1979	1980	1981*	1979	1980	1981*	1979	1980	1981*
<i>Million dollars</i>												
Algeria	99	188	270	—	—	—	174	317	358	35	46	55
Morocco	50	52	80	—	—	—	150	202	290	11	30	36
Tunisia	29	28	35	—	—	—	30	57	72	30	40	45
Libya	74	97	135	—	—	—	62	140	161	4	10	12
Egypt	132	142	160	2	14	17	221	419	334	1	80	120
Saudi Arabia	151	185	230	66	123	162	158	297	323	19	78	105
Kuwait	37	55	77	14	22	28	12	18	34	18	19	22
UAE	37	47	60	22	43	47	9	12	13	12	19	24
Qatar	7	12	17	2	3	4	21	29	32	1	—	1
Bahrain	6	7	8	3	3	3	3	4	5	3	4	5
Yemen	17	37	57	42	55	58	12	20	30	12	24	36
PDR Yemen	20	22	24	3	4	5	5	10	12	1	1	1
Oman	11	16	20	5	5	5	2	2	3	3	2	3
Iran	116	203	285	2	7	37	8	71	133	127	290	480
Iraq	70	81	112	—	3	40	8	17	40	14	101	140
Syria	66	94	145	—	—	—	62	106	110	26	26	28
Lebanon	30	45	60	—	1	1	25	30	40	26	11	28
Jordan	49	38	48	—	—	1	15	33	37	18	34	44
Israel	16	10	14	—	—	—	16	9	12	30	57	58
Turkey	2	3	5	—	—	—	—	—	—	—	109	130
Cyprus	5	6	7	—	—	—	9	12	11	5	5	6
Total	1,024	1,368	1,849	161	283	408	1,002	1,795	2,050	396	986	1,379

— = Data not available, or negligible.

\*Estimate.

Sources: UN trade runs for the EC for 1979 and 1980 and ERS estimates for 1981.

**Table 6—The Mideast and North Africa: Imports of grain, annual 1979-81**

Importer	Wheat and flour			Rice			Feed grains			Total		
	1979	1980	1981*	1979	1980	1981*	1979	1980	1981*	1979	1980	1981*
<i>1,000 tons</i>												
Egypt	4,907	5,423	5,878	2	7	1	494	944	1,384	5,403	6,374	7,263
Algeria	2,409	2,445	2,470	10	23	27	555	615	780	2,974	3,083	3,277
Morocco	1,541	1,693	2,483	—	—	—	123	760	510	1,674	1,953	2,993
Tunisia	856	610	620	2	5	5	257	340	440	1,031	955	1,065
Libya	525	600	650	55	45	60	120	135	140	700	780	860
North Africa	10,238	10,771	12,101	69	80	93	1,549	2,794	3,254	11,782	13,145	15,458
Iran	1,250	1,750	2,100	440	470	630	890	1,300	1,320	2,580	3,520	4,050
Iraq	2,300	1,698	1,300	320	429	370	400	350	375	3,020	2,368	2,045
Syria	521	583	350	127	119	130	489	310	325	1,137	1,027	805
Lebanon	366	360	430	21	22	23	338	216	300	725	598	753
Jordan	355	280	300	35	38	40	170	130	190	560	448	530
Turkey	—	—	870	23	15	30	—	—	—	23	15	900
Israel	573	484	506	51	44	50	1,107	1,303	1,350	1,927	1,878	1,906
Cyprus	77	70	75	5	4	4	165	247	170	247	321	249
Saudi Arabia	1,000	1,100	1,200	340	496	575	1,000	1,900	2,800	2,340	3,496	4,575
Kuwait	195	210	225	95	98	110	176	170	200	466	478	535
UAE	110	120	135	250	347	220	15	28	25	375	495	380
YAR	425	450	480	95	115	125	5	11	17	525	576	622
Qatar	62	37	60	21	23	20	8	22	27	91	82	107
Bahrain	17	40	45	11	36	34	2	4	5	30	78	84
Oman	53	62	70	35	43	47	2	7	9	90	112	122
PDR Yemen	92	80	90	73	45	50	5	6	7	170	130	147
Total	17,634	18,095	20,337	2,011	2,424	2,551	6,321	8,698	10,374	26,088	28,767	33,268

— = Data not available, or negligible.

**Table 7—Egypt: Agricultural exports by quantity and value, annual 1974-81**

Commodity	1974	1975	1976	1977	1978	1979	1980	1981
<i>Tons</i>								
Cotton	232,240	185,100	165,176	143,900	132,950	146,584	147,655	151,800
Rice	136,257	104,310	211,039	223,000	146,837	94,878	182,400	134,900
Potatoes	99,838	47,565	157,673	166,121	97,830	113,072	143,860	158,000
Onions	103,857	70,042	71,279	87,756	67,010	23,928	48,340	34,000
Oranges <sup>1</sup>	162,494	210,317	170,107	170,547	132,815	74,593	109,513	135,000
Sugar	50,751	43,907	39,249	58,245	48,539	35,593	9,645	5,000
Cottonseed cake	23,466	38,237	27,081	13,339	21,268	1,122	6,371	2,000
Peanuts	7,470	7,979	8,947	14,270	13,158	5,281	10,976	14,000
Bran and feed	1,772	1,039	2,906	3,000	—	NA	—	—
Flax	5,889	12,453	22,126	16,292	11,688	10,598	8,041	7,000
Tomatoes	1,976	2,188	2,475	3,845	2,061	4,172	2,057	4,800
Pulses	618	405	3	1,405	—	457	149	100
Lemons	97	97	557	95	258	491	519	800
Grapes	182	142	133	57	30	76	84	111
Dates	352	675	680	700	810	900	800	700
Wool	390	403	50	—	—	—	—	—
Beer	2,531	3,767	714	120	—	—	20	30
Wine	1,318	2,712	1,600	2,922	3	1,000	900	1,200
Honey	51	89	90	100	116	13	10	18
<i>1,000 dollars</i>								
Cotton	714,496	513,848	395,546	455,877	336,173	382,206	423,413	411,000
Rice	101,573	62,548	79,157	59,755	51,120	31,563	63,700	49,000
Potatoes	15,976	8,220	43,848	41,929	15,013	26,901	32,501	37,000
Oranges <sup>1</sup>	28,534	47,636	48,888	54,974	53,014	22,351	38,940	55,000
Sugar	24,978	36,180	25,560	26,196	18,482	12,705	4,307	2,000
Cottonseed cake	3,174	4,363	3,364	2,497	3,857	2,015	1,340	11,000
Peanuts	6,496	6,992	5,319	9,739	9,935	5,800	10,434	28,000
Bran and feed	256	128	307	300	—	—	—	—
Flax	4,577	5,100	13,204	20,259	9,009	8,940	6,739	8,000
Onions	19,402	17,808	26,158	28,320	12,979	4,725	20,096	24,000
Tomatoes	676	856	1,160	1,697	1,350	1,548	986	2,000
Pulses	292	312	3	739	—	334	103	100
Lemons	21	22	181	243	176	168	157	—
Grapes	77	72	89	69	24	58	67	80
Dates	207	483	480	500	560	700	1,000	1,000
Wool	2,191	1,638	200	—	—	—	—	—
Beer	561	923	355	58	—	—	30	40
Wine	400	1,360	1,132	2,645	3	1,011	1,200	1,500
Honey	58	112	120	150	463	48	40	50
Other	61,849	92,847	98,270	105,000	110,100	100,834	104,325	73,040
Total	986,294	801,448	743,341	810,947	622,258	601,907	709,348	702,810

— = Data not available, or negligible.

NA = Not applicable.

<sup>1</sup>Includes tangerines and limes.

Sources: CAPMS, Cairo; United Nations trade runs for 1974-79; FAS Agricultural Attache reports; and ERS estimates.



**Table 8—Iran: Total agricultural imports, quantity and value for selected commodities, annual 1978-81**

Commodity	1978	1979	1980	1981	1978	1979	1980	1981
	1,000 tons				Million dollars			
Wheat	1,350	1,200	1,555	2,000	202	170	265	350
Wheat flour	52	56	42	70	11	12	10	20
Rice	367	440	470	630	201	225	240	350
Barley	487	200	600	650	74	34	110	130
Corn	334	600	880	600	65	90	140	95
Other cereals	283	50	100	150	36	7	12	25
Total cereals	2,873	2,546	3,647	4,110	589	538	777	970
Bakery products	17	20	3	5	27	29	5	8
Soybean oil	288	251	245	270	203	191	225	230
Sunflower oil	14	—	—	20	8	—	—	12
Cottonseed oil	40	51	11	25	30	33	10	20
Other vegetable oils	34	8	19	35	32	7	18	30
Total oils	376	310	275	350	273	231	253	292
Soybean meal	120	150	100	120	22	38	22	24
Oranges	65	30	20	15	23	13	11	10
Bananas	100	80	45	40	37	30	20	20
Apples	39	20	5	27	29	20	4	15
Sugar	876	746	800	1,100	241	253	500	530
Tea	20	21	12	20	59	56	30	40
Beef	28	32	49	85	50	85	120	205
Mutton	50	65	70	125	96	131	140	260
Poultry meat	18	25	15	85	20	29	15	60
Other meat	5	4	1	4	3	4	1	6
Eggs	30	48	38	60	31	50	42	70
Milk	15	11	14	17	30	22	38	45
Butter	29	60	79	100	35	70	85	130
Cheese	40	46	77	110	68	86	95	145
Cattle <sup>1</sup>	15	9	7	8	12	10	9	12
Sheep and goats <sup>1</sup>	3,056	2,000	3,300	3,200	160	105	195	250
Other	NA	NA	NA	NA	430	270	361	385
Total					2,235	2,070	2,723	3,477

— = Data not available, or negligible.

NA = Not applicable.

<sup>1</sup>1,000 head.

Sources: 1980 FAO Trade Yearbook and ERS matrix tables for shipments to Iran.

**Table 9—Middle East and North Africa: Indices of agricultural and food production, total and per capita, by country, 1977-81**

Country	1977	1978	1979	1980	1981	1977	1978	1979	1980	1981
Total agricultural production					Per capita agricultural production					
(1969-71 = 100)										
North Africa										
Algeria	95	103	105	112	124	76	80	78	81	87
Egypt	108	113	117	122	123	92	94	95	96	94
Libya	187	214	209	227	246	140	153	144	151	157
Morocco	94	120	116	121	95	77	94	89	90	69
Tunisia	148	146	149	168	174	125	121	121	132	134
Total	107	118	120	126	123	89	95	94	96	91
Middle East										
Cyprus	96	88	95	110	113	92	84	90	104	105
Iran	149	158	145	133	125	126	130	117	104	94
Iraq	121	132	139	148	140	96	101	102	106	96
Israel	144	148	143	149	148	116	115	109	110	105
Jordan	82	131	80	161	98	65	101	60	117	69
Lebanon	96	115	105	120	112	83	98	87	100	90
Saudi Arabia	160	161	189	210	239	130	127	144	155	171
Syria	143	170	138	200	186	127	156	119	183	160
Turkey	128	132	132	136	138	107	108	107	108	107
Total	134	140	138	143	141	112	114	110	110	107
Total food production					Per capita food production					
North Africa										
Algeria	94	103	104	111	123	75	79	77	80	86
Egypt	115	120	123	127	130	98	100	100	100	99
Libya	191	218	211	230	250	142	156	145	153	159
Morocco	94	119	116	121	95	76	94	89	90	69
Tunisia	148	146	150	168	175	125	121	121	133	134
Total	110	121	122	128	126	92	98	96	98	93
Middle East										
Cyprus	96	88	95	110	113	92	84	90	104	105
Iran	152	162	150	137	128	126	130	117	104	94
Iraq	122	133	140	150	141	96	101	102	106	96
Israel	142	143	139	144	141	116	115	109	110	105
Jordan	82	131	80	161	98	65	101	60	117	69
Lebanon	100	121	110	130	120	83	98	87	100	90
Saudi Arabia	160	161	189	210	239	130	127	144	155	171
Syria	160	202	159	253	229	127	156	119	183	160
Turkey	128	132	133	138	140	107	108	107	108	107
Total	135	142	140	145	144	112	114	110	110	107

Table 10—Middle East and North Africa: Production of selected agricultural commodities by country, average 1969-71, annual 1979-81

Country and year <sup>1</sup>	Wheat	Barley	Corn	Rice, paddy	Pulses <sup>2</sup>	Grapes	Citrus	Dates	Cotton	Cotton-seed	Tobacco	Sugar	Milk	Wool	Meat
1,000 tons															
Algeria															
1969-71	1,359	470	6	4	38	1,166	498	121	—	—	5	—	467	9	110
1979	1,022	420	1	1	54	343	449	208	—	—	3	—	590	19	137
1980	1,300	770	1	1	53	290	360	165	—	—	3	—	595	18	139
1981	1,296	600	1	1	63	320	421	180	—	—	7	—	600	18	145
Egypt															
1969-71	1,509	92	2,369	2,614	312	108	787	330	520	897	—	471	1,621	3	318
1979	1,856	122	2,938	2,510	245	242	1,212	406	484	792	—	638	1,830	4	448
1980	1,796	107	3,230	2,384	220	299	1,063	446	530	844	—	662	1,865	4	472
1981	1,938	103	3,307	2,236	213	298	1,028	391	508	800	—	711	1,902	4	493
Libya															
1969-71	39	70	—	—	—	6	20	57	—	—	2	—	49	—	15
1979	110	100	—	—	—	16	45	98	—	—	2	—	114	—	43
1980	141	71	—	—	—	14	36	85	—	—	2	—	124	—	46
1981	150	100	—	—	—	15	36	85	—	—	2	—	130	—	53
Morocco															
1969-71	1,861	2,243	387	31	323	213	812	92	7	14	3	149	532	16	190
1979	1,797	1,886	312	20	262	360	877	97	5	10	7	345	600	26	250
1980	1,811	2,210	333	27	192	375	948	75	7	14	7	360	723	13	275
1981	892	1,039	90	18	51	375	977	65	6	13	6	385	550	16	290
Tunisia															
1969-71	450	124	—	—	38	120	76	42	—	—	3	5	156	5	54
1979	680	270	—	—	80	80	156	27	—	—	5	8	221	7	101
1980	869	296	—	—	81	79	136	47	—	—	4	6	253	8	97
1981	963	270	—	—	98	82	193	45	—	—	5	6	280	8	107
Total North Africa															
1969-71	5,218	2,999	2,762	2,649	711	1,613	2,193	642	527	911	13	625	2,825	33	687
1979	5,465	2,798	3,251	2,531	641	1,041	2,739	836	489	802	17	991	3,355	56	979
1980	5,917	3,454	3,564	2,412	546	1,057	2,543	818	537	858	16	1,028	3,560	43	1,029
1981	5,239	2,112	3,398	2,255	425	1,090	2,655	766	514	813	20	1,102	3,462	46	1,088

See footnotes at end of table.

—continued



Table 10—Middle East and North Africa: Production of selected agricultural commodities by country, average 1969-71, annual 1979-81—cont.

Country and year <sup>1</sup>	Wheat	Barley	Corn	Rice, paddy	Pulses <sup>2</sup>	Grapes	Citrus	Dates	Cotton	Cotton-seed	Tobacco	Sugar	Milk	Wool	Meat
1,000 tons															
<b>Cyprus</b>															
1969-71	74	87	—	—	12	189	196	—	—	—	1	—	—	—	—
1979	21	84	—	—	8	152	202	—	—	—	1	—	—	—	—
1980	25	100	—	—	8	157	242	—	—	—	1	—	—	—	—
1981	25	103	—	—	8	155	248	—	—	—	1	—	—	—	—
<b>Iran</b>															
1969-71	3,667	1,067	35	1,095	105	263	257	293	156	324	18	562	1,867	20	244
1979	5,000	970	57	1,212	171	500	325	300	100	232	25	640	2,300	16	700
1980	4,750	1,000	55	1,163	160	520	315	310	80	186	20	600	2,000	16	600
1981	5,300	1,166	60	1,200	139	530	310	250	60	139	27	450	1,700	16	490
<b>Iraq</b>															
1969-71	1,080	692	—	268	46	139	37	439	13	28	15	—	1,300	13	107
1979	880	620	—	185	66	426	138	392	40	83	12	—	1,800	13	270
1980	1,300	575	—	190	68	420	140	490	40	83	11	—	1,850	13	280
1981	1,500	800	—	165	68	440	150	430	43	89	10	—	1,600	14	195
<b>Israel</b>															
1969-71	160	18	—	—	—	69	1,279	—	37	57	—	33	480	—	134
1979	133	16	—	—	—	67	1,539	—	75	124	—	21	737	—	261
1980	253	16	—	—	—	72	1,507	—	79	125	—	—	712	—	261
1981	215	15	—	—	—	70	1,322	—	92	152	—	15	723	—	262
<b>Jordan</b>															
1969-71	155	38	—	—	30	41	59	—	—	—	—	—	—	—	—
1979	15	17	—	—	24	58	123	—	—	—	—	—	—	—	—
1980	150	62	—	—	37	63	107	—	—	—	—	—	—	—	—
1981	65	25	—	—	36	60	110	—	—	—	—	—	—	—	—
<b>Lebanon</b>															
1969-71	35	6	—	—	9	94	243	—	—	—	7	17	—	—	—
1979	40	5	—	—	12	135	345	—	—	—	5	15	—	—	—
1980	35	7	—	—	14	140	315	—	—	—	4	6	—	—	—
1981	25	10	—	—	19	145	320	—	—	—	4	8	—	—	—

See footnotes at end of table.

—continued

Table 10—Middle East and North Africa: Production of selected agricultural commodities by country, average 1969-71, annual 1979-81—cont.

Country and year <sup>1</sup>	Wheat	Barley	Corn	Rice, paddy	Pulses <sup>2</sup>	Grapes	Citrus	Dates	Cotton	Cotton-seed	Tobacco	Sugar	Milk	Wool	Meat
1,000 tons															
Saudi Arabia															
1969-71	119	29	5	3	—	16	6	215	—	—	—	—	—	—	55
1979	200	25	25	3	—	60	15	320	—	—	—	—	—	—	95
1980	225	28	27	3	—	62	15	325	—	—	—	—	—	—	124
1981	275	29	29	3	—	80	17	330	—	—	—	—	—	—	161
Syria															
1969-71	763	328	—	—	132	215	—	—	152	247	10	22	—	9	—
1979	1,319	394	—	—	106	287	—	—	125	214	13	35	—	18	—
1980	1,800	1,200	—	—	213	356	—	—	118	205	14	61	—	18	—
1981	1,800	1,400	—	—	168	370	—	—	130	225	14	67	—	18	—
Turkey															
1969-71	9,000	3,720	1,058	237	577	3,350	644	—	441	705	155	543	4,318	47	529
1979	13,000	5,240	1,350	346	753	3,164	1,055	—	476	769	214	1,052	5,411	59	656
1980	13,000	5,300	1,240	262	808	3,220	1,062	—	500	800	228	812	5,502	61	640
1981	13,200	5,500	1,300	340	907	3,320	1,130	—	487	780	180	1,320	5,674	62	648
Total Middle East															
1969-71	15,053	5,985	1,098	1,603	911	4,376	2,721	947	799	1,361	206	1,177	7,965	89	1,069
1979	20,608	7,371	1,432	1,746	1,140	4,849	3,742	1,012	816	1,422	270	1,763	10,248	106	1,982
1980	21,538	8,288	1,322	1,618	1,308	5,010	3,703	1,125	817	1,399	278	1,479	10,064	108	1,905
1981	22,405	9,048	1,389	1,708	1,345	5,170	3,607	1,010	812	1,385	236	1,860	9,697	110	1,756
Total North Africa & Middle East															
1969-71	20,271	8,984	3,860	4,252	1,622	5,989	4,914	1,589	1,326	2,272	219	1,802	10,790	122	1,756
1979	26,073	10,169	4,683	4,277	1,781	5,890	6,481	1,848	1,305	2,224	287	2,754	13,603	162	2,961
1980	27,455	11,742	4,886	4,030	1,854	6,067	6,246	1,943	1,354	2,257	294	2,507	13,624	151	2,934
1981	27,644	11,220	4,787	3,963	1,770	6,260	6,262	1,776	1,326	2,198	256	2,962	13,159	156	2,844

— = None, negligible, or not identified in ERS data base.

<sup>1</sup>Data for 1981 are preliminary. <sup>2</sup>Pulses may include dry beans, broad beans, lentils, chickpeas, cowpeas, dry peas, vetch, bambarra groundnuts, and pigeon peas.



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